

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY

I.—ON RELATIONS; AND IN PARTICULAR
THE COGNITIVE RELATION.

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1. *The Nature of Relations.*—Some relations seem to belong to things themselves, like the relation of paternity; others might appear to be the work of the mind in comparing or contrasting, such as likeness and unlikeness, the negative relation, etc.; with some, such as relations of time and space, the case seems doubtful. When A is said to be far from B or to be greater than B, in what sense does the relation belong to A or B? A let us say weighs a pound, and B an ounce. The pound weight belongs to A, but is not its being greater than B merely introduced by the mind which measures the two weights against one another?

This question, an epistemological one, is suggested by the diversity of experienced relations. A difficulty of a different sort is raised when we inquire into the reality of relations. On the one hand, when we keep to concrete facts, some relations seem more real or more important than their terms. For instance, the relation of sovereignty is or may be far more important than the individual who is sovereign. On the other hand relation seems to many so much infected with contradiction as to be essentially appearance, when they inquire into its metaphysical value. The argument assumes many forms, but ultimately it is of the following sort. Things which are related to each other are said to be correlatives; yet we may say that relations in turn are correlative to their terms. Consequently there is a new relation between a term and its relation, and relations seem therefore to involve the infinite regress. Let us assume that infinite regress, under

all conditions, implies absurdity. The assumption is not valid; for there is a great difference between the absurdity of the infinite process whereby the kitten chases its own tail, and the infinite divisibility of a line. But assume that infinite process condemns. Then, since, to revert to the first half of the dilemma, relations are at least as real as the terms they relate, either we must deny both to be real or we must ask, is the argument sound according to which relations involve the infinite process?

Relation is in fact the vaguest word in philosophy. It stands for any connexion between things. But while specific relations are defined, relation as such, what relation is, appears most often to be taken for granted without any attempt at determination. I do not doubt that relation is a notion so simple as to defy definition. Unless you know what a relation is, no one can explain it to you. But the same thing is true of red colour. Yet we can fix our minds upon what red colour is by describing it as the colour of blood. Any similar attempt to describe relations will but call attention to something equally obvious. But unless it is done we are likely, in speaking of relations, to be vague and to move about in the dark. At least I have found it so in my own case.

In this matter I have found the greatest help from the statement of James in his *Psychology*¹ that relations of space were themselves spaces. In one of the chapters of his *Meaning of Truth*² James describes how he was much troubled by T. H. Green's criticisms of English sensationalism and by Green's doctrine that relations are pure acts of intellect unifying our experience; and how "he well remembered the sudden relief it gave him to perceive one day that space-relations at any rate were homogeneous with the terms between which they mediated. The terms were spaces and the relations were other intervening spaces." Possibly others like myself who acknowledge with gratitude their indebtedness to Green felt the same sort of relief when they first read James's *Psychology*. In the chapter referred to James recalls a distinction drawn by Prof. Strong between 'saltatory' and 'ambulatory' relations. "For example difference is saltatory, jumping as it were immediately from one term to another, but distance in time or space is made out of intervening parts of experience through which we ambulate in succession." And James goes on to describe his own view of knowing as ambulatory. With this view of knowing I am not here concerned. Moreover the

¹ Vol. ii., pp. 148-153.

² Chap. vi., "A Word more about Truth," pp. 138 ff.

distinction of saltatory and ambulatory relations, useful and happy as it is, appears to me of secondary importance. What is really significant and important in ambulatory relations is that the relation is, whether homogeneous with its terms or not, of one texture with it, constitutes with them one integral situation. The thesis which is maintained here is that what James says of space and time and other ambulatory relations is true of all relations. They are none of them capable of abstraction from their terms, if they are represented truly. There never is a jump from term to term: the terms are parts of one continuous tissue. Whether there are many distinguishable links or few, or whether the interval is like its terms or not is a secondary matter, however striking in its effect. Difference is ultimately no more of a jump than the relation of two adjacent points of space, if we can with propriety speak of adjacence in the members of a continuous series.¹

A relation then may be described as the whole situation into which the terms which stand in the relation enter; so far, of course, as the situation concerns the relation. The situation may be one of events, as in the causal relation, or of things which are simultaneous, as the points of a line. By, the situation, is meant the real system of circumstances, which used to be called the *fundamentum relationis*, in so far as that system of circumstances brings the terms into continuous connexion with one another. This applies directly to the relation between the two ends of a line, or the interval of time which forms the relation between two points of time. The interval is the whole system of circumstances into which the two points of time enter in so far as that system connects the points. The relation of maternity is the actual history of bearing the child and the whole set of actions, including feelings, in which the mother as mother is engaged towards her child; again with the proviso, in so far as these actions establish a connexion between mother and child.² The reason of the proviso is that these actions by themselves are, as such, states of the mother; they

¹ Since I corrected this paper for the press, I discover that I have neglected to read James's paper on *The Thing and its Relations* printed as Appendix A of *A Pluralistic Universe*. What is said above and in the remainder of the section as to the continuity of the terms and their relation does not add anything to what is said by James in that paper. There is at most a difference of emphasis.

² Compare Mill's admirable description of relations, *Logic*, Bk. i., ch. ii., § 7, and particularly ch. iii., § 10, where however allowance has always to be made for Mill's prepossessions (1) in favour of idealism in metaphysics and (2) in favour of atomism in describing mental states.

are indeed essential to the relation, but the relation involves the child as well as the mother, and is the total situation or connectedness, established by actions or passions on the part of the mother and of the child. The relation of kingship is the system of acts and the capacities of them, or passions and the capacities of them in which the king as king is concerned with his subjects, in so far as these set up a situation of king and subjects. It is a matter of subsidiary moment whether the relations are as in these examples asymmetrical, or as in the relation of equality, symmetrical. In so far as the situation of mother and child is a total situation, the two relations of mother to child and child to mother are the same situation seen from two different ends. What is action in the one case is passion in the other. Moreover if the relation is a very comprehensive one, it may not be easy, without straining of language, to describe the situation except in terms of the one side of it. Thus the filial relation comes to include active support of the mother by the child; and it may seem unnatural to describe this situation as part of the maternal relation, because we more naturally describe the relation from the point of view of actions than passions. But this is a mere matter of usage and presents no difficulty. These examples also illustrate the obvious limitation which was added above to the general description of relations, that they are the whole situation into which the terms enter, so far as the situation concerns the relation. For instance the situation of the king towards his subjects may be spatial as well as kingly: like Saul he may be a taller man than his subjects. This does not concern the kingly situation. Finally we may observe that what James (in the *Psychology*) affirms of relations of space and time is true of other relations, indeed of all other relations, that the relation may be just as substantive as its terms. It is just as much a reality as the terms and belongs to the same tissue with them; and it may thus be on occasion the centre of regard while the terms become as it were adjectives of it. The two points may be merely the ends of the line; in a constitutional monarchy the king may be an appendage or function of the constitution; the characters in a play which are related by the plot may be shadowy servants of the plot, the "fringe" may be central and the centre a "fringe".

It is not pretended that the above is anything more than a description of relations by pointing out what it is that we mean when we talk of relations. If it is obvious, its importance lies in the consequences. But so far there is no excuse for regarding relations as the work of the mind. They are

one element in empirical fact. But some account must be taken of that doubtful class of relations, such as relations of likeness or difference, identity, equality, greater or less, and the like, or even such relations as 'and,' 'but' or 'however'; all of which seem at first sight eminently to be mental. So subjective do such relations seem that attempts have been made to refer these relations to the experience of the act of attention itself by which two like or different things (to take these examples) are compared. The difference or likeness of things does not, it might be urged, belong to the things, but arises from our experience of them. Red and green are red and green; but it is we who feel them 'different'. And we might even say that one magnitude is declared greater than another because of the felt excess in the act of attention to the one over that of attention to the other. But fascinating as such a theory might seem, it is clearly circular. For the acts of attention must themselves be compared to feel their likeness or difference. The only difference between likeness in things and likeness in mental acts is that in the one case it is contemplated and in the other enjoyed.¹ This is a categorical relation. And doubtless if our principle is right the understanding of mental likeness will enable us better to understand likeness in things. But it is only the categorical character of such relations which misleads us into attributing to them a subjective origin. Even 'but' and 'still' are not subjective; they are found also in objective situations of opposition.

What then we may ask are the objective situations which constitute such relations as likeness, identity and difference? The answer could only be given by a full inquiry into universals and particulars, which I cannot here attempt. I am content to regard the relation of particular and universal as a total situation into which those terms enter, say the participation of the particular, in Platonic fashion, in the universal. Difference means a real exclusion of the differents, whatever that exclusion may be, whether from the same time and place, or from participation in the same universal. Considering the difficulty of describing the situations in question we might conveniently fall back upon a pragmatist criterion, describing by a symptom rather than by a cause. We might say that the real situation into which two things which are identical in some respect enter is such that in virtue of it one may be substituted for the other.² When we have complete substi-

¹ Compare article on 'Method of Metaphysics' in *MIND*, No. 81, Jan., 1912.

² Cp. James, *Some Problems of Philosophy*, p. 103.

tutability, then we have numerical identity. Likeness carries with it partially successful and partially unsuccessful capacity for substitution. There will be corresponding criteria for difference, whether numerical or only conceptual (to borrow a term of Mr. Moore's).¹ It would in my view be a mistake to identify these relations with these consequences of them, as appears to be done by pragmatism. But these tests are at any rate useful as well as legitimate as a method of describing the real situations which constitute the relations.

2. *Are Relations Internal or External?*—From this the answers to certain well-known questions follow at once. Are relations internal or external to their terms? In the strict sense, indeed, neither alternative is true. For if a relation, to be internal to the things it relates, must be a quality of them, it is clear that it is not a quality of each term separately. For that would omit from the relation the independent correlative thing. This has been already alluded to. The child is in no sense a quality or part of a quality of the mother, but the independent real existence of the child is necessary for the circumstances which make up the whole situation described as the relation of maternity. On the other hand to call the relation a quality of the two terms taken together is an abuse of thought. The relation is nothing but the connectedness of the terms, and it is not a quality. But if we mean by the internality of a relation that it cannot exist independently of its terms, then in this sense relations are internal to their *terms*. It seems obvious that they are not external to their terms, if we remember that the whole situation into which things enter when they are related is not an aggregate of circumstances but continuous, literally an integral situation. In so far as things enter into the relation and become its terms, it is not external to them. The relation exhibits itself in the acts or states by virtue of which the things participate in the relation. Thus paternity is not external to a father but it is external to a man before he is a father. Thus a relation can only be considered external to its terms if those terms are considered out of the relation, or rather if they *can* as in the case of paternity be so considered. But in that case there is no relation of the kind contemplated. Hence if we separate the world into terms and their relations, we are making an abstraction. The world consists of things *in* their relations. The notion of the externality of relations to their terms implies discontinuity between things. If they were so

¹ In his paper on "Identity," *Proceedings of the Aristotelian Society*, vol. i., 1900-1.

discontinuous, there would be no total situations in the world, and consequently neither relations nor terms. For while you can explain wherein consists the continuity of elements which are taken to be relatively independent members of a continuum, you cannot explain how a continuum can be generated from elements supposed to be discontinuous and completely independent.

It is only when relations are regarded as external to things that the famous argument from the infinite regress holds good. As I understand Mr. Bradley's treatment of relations and qualities, his demonstration that qualities and their relations are not reality but appearance, and that whether taken alone or together they are ultimately unintelligible, depends on abstracting or separating things from their relations, so that *in effect* the relations are external to their terms.¹ Unfortunately, we are left to conclude that relations as they really enter into experience are appearance; but such relations, not external to their terms, involve continuity, and in this case the argument from infinite regress breaks down. For in that case either we get the sort of infinite regress which is legitimate; or we fail to get the infinite regress which is invalid and circular and convicts of absurdity. If relations are considered as the total situation which makes its terms continuous with one another, we can find here as in every continuum an infinite regress, for of every continuum it is at least true that a term exists between any two terms. On the other hand, if we still understand the relation as a con-

¹The chief business of this paper is with the cognitive relation, in its connexion with relation in general; and I have to be brief in respect of the general question; and I hope that in my brevity I shall not be understood as misrepresenting Mr. Bradley. I do not mean that he thinks relations are external to their terms. On the contrary it is perfectly clear that he does not; and in Note B of the Appendix to his later editions *A. and R.* this is insisted on with all detail. "The whole," he says, p. 575, "has a character which cannot be said to consist barely in mere terms and mere relations between them." "The whole that is analysed into relations and terms can fall into the background and be obscured, but it can never be dissipated," p. 573. I only mean that his arguments in chapter iii. apply to relations only as separated from the terms, with neglect of the "whole" (what I am calling the total situation). It is this neglect which Mr. Stout seeks to make good by introducing the idea of 'relatedness'. I must refer forward to the later part of this section and to what is said in the next section. Of course too the argument from the infinite regress is not put by him in the crude form which I have given to it. According to him, if you speak of qualities and relations, a quality *A* is *A*₁ in itself and *A*₂ in its relation, and consequently there is a fresh relation between *A*₁ and *A*₂. But it does not seem to me that this is different in principle from my crude version. If the quality in the relation were different from the quality in itself, then the relation is external to the quality.

tinuous situation, the invalid infinite regress does not exist. Take the argument, to show that such invalid regress exists, in the deliberately bald form in which I have above represented its essential character. The relation is itself correlative to its terms, and there is therefore a new relation between the term and its relation to the other term; and so on. It is clear that this makes the relation independent of its term and discontinuous with it. For it is the relation itself which makes the terms correlative and terms of the relation. But if there is a new relation of the relation to its term, the relation has now become a term, while pretending still to be a relation, and this is to strip it of its real character as a relation, that is, as a situation connecting its terms, and in fact makes it a term of itself. For example, suppose A is the father of B. If we assert a new relation between A and A's paternity of B, we imply that the relation in question is separable from A as A enters into the relation of paternity to B. There may of course be a relation between A's paternity of B and A, so far as A stands outside the relation; that is to say, A's other qualities may be related to his paternity of B, but this is irrelevant, for the A who is supposed to be related to A's paternity of B is the A who is the father of B.

A further question is raised by Mr. Stout's proposal¹ to distinguish, besides terms and their relations, a third element, namely the relatedness of the terms. By relatedness he means the actual element of continuous connexion which as we have seen all relation as it really exists implies. With this distinction he is able to show convincingly that the contradictions alleged by Mr. Bradley in the conception of things or qualities and their relations disappear. That is to say, if we consider real experience and consider the real relations of things as containing besides mere "relation" also relatedness, he is able to show that relations depend on qualities and qualities depend on relations, in different respects; relations depend on qualities for the character which they have, or for their very existence, but qualities depend on relations only for being related. But I think he is driving out Satan by Beelzebub. For relatedness has to be introduced in order to make good the defect of the 'relations' which in the arguments he is considering are abstracted from their terms. The real answer would seem to be that the relation so described is not a real relation. The real relation includes relatedness, which is actual entry into a relation. Now if a

¹ 'Alleged Self-contradictions in the Concept of Relation,' *Proc. Arist. Society*, vol. ii., 1901-2, a paper to which I am greatly indebted.

relation means the whole relevant situation into which the terms enter, there can be no entry into the relation distinct from the relation itself. The relation once more is taken generally or in the abstract and relatedness or actual entry is required to make it particular.¹

It does not however follow that because there are no abstract relations there are no general ones. There seems to be no more reason for denying relations like paternity or kingship to be general than for denying situations to be general. But just as we are apt, because we can legitimately distinguish in things the law of their constitution from the particularities which obey the law, to think of the concept or law as something altogether separate from its particulars; so by taking relations in their generality, we are apt to set up the relation as an independent existence, as if it did not always assume in our experience the form of some situation involving particulars and therefore itself coloured thereby; and then arise the antinomies we have mentioned as to things and their relations, in which things are conceived as if they were doing nothing to each other, were unrelated, and relations as if they had nothing to relate.

3. *Categorical and Empirical Relations.*—So much for the question whether relations are in their nature internal or external. But within relations a distinction has now to be drawn, which is independent of the previous problem. Some relations, such as equal or like or different are *intrinsic* to their terms, others like paternity or kingship are *extrinsic* to them. Anything in space must as such stand in spatial relations; anything which has magnitude must be equal to or greater than some other magnitude. But a man though, to be a man, he must stand in human relations to other human beings, must for instance have a father, need not be a king or a father or a servant. It is clear from the examples that the distinction is relative. A man need not be the actual father of any one but he must be the son of some one, and the filial relation is therefore intrinsic to the type man. Thus we may distinguish properly three kinds of relations: those which are intrinsic as belonging to things necessarily, that is to anything; those which are intrinsic to a type, but not necessary to the existence of everything, and

¹ This is the ground of Prof. A. E. Taylor's criticism (in *Elements of Metaphysics*, p. 155). He urges that if my hat is not actually on my head, that is if the relatedness of the terms is not there, the relation of 'on' does not exist but only some other, more general relation, such as 'above'.

those which are extrinsic simply. The first kind of relations are categorial: they arise out of the categorial characters of things. Everything is in time or space, has quantity, has degrees of quality, has causality so far as it is in time at all and so universally, that is it stands in causal relation with something or other. On the other hand both the other kinds of relation are empirical, in the narrower sense of that term. True that a man as such has human relations, which, like relations to his kind, are intrinsic to him but they flow from his empirical characters and not from his categorial ones. The strictly extrinsic relations are still more obviously empirical. The difference of the last two classes is in fact the old difference between essential properties and accidents. A man's feeling for his kind is essential; but to have a son or a wife is an accident and may be a separable accident. The distinction of categorial and empirical relations might be expressed more accurately as that of *a priori* and *a posteriori* relations, but there is little risk of misconception of the meaning of the term empirical, as if what is described as not-empirical was not experienced.

This distinction of categorial and empirical relations has real importance for metaphysics. It affects the answer to the question whether there can be any truth or reality short of the absolute or whole reality. The categorial characters of things and the relations in which those characters exhibit themselves are the fundamental or pervasive features of experience. Consequently any attempt to deny their reality and reduce them to the level of mere real appearance must consist, like Mr. Bradley's, in showing them to be inherently or internally contradictory. The success or insuccess of such attempts does not fall to be considered here. But it is not enough to show that these notions present difficulty. And what is more to the point it is not enough to show that they are partial and incomplete. For this consideration is only relevant to prove their ultimate unreality if it can also be shown that they are vitiated or at least altered by the addition of fresh characters. Now truths of space and time are not vitiated because things possess other than merely temporal and spatial characters. I take space and time merely as instances of categories in general. If they are the fundamental features of experience, any fresh increment of experience implies them already and cannot alter them in themselves. It is not merely that in these categorial truths we abstract from the other characters of things, a justification which is sometimes put forward for belief in such truths. A circle is a circle whether it is of bronze or chalk. It is only

abstract as the object of thought is abstract in distinction from the object of perception.¹ It is not hypothetical in itself, but necessary, in the sense of fundamental.

But when we come to empirical relations, seeing that they are *a posteriori* or empirical, the question whether a partial truth is wholly or only partially true is a very different matter and it can only be settled by empirical experience. The answer depends on whether the fresh relations into which a thing enters alter its character or not. A man may have his character as a man changed by becoming a king or a father. He may be brutalised by the possession of power or become egotistic or parochialised by the concentration of his affections. Consequently it is only so far as we can be sure that the intrinsic character is not affected by fresh empirical relations that we are justified in laying down universal propositions. Empirical propositions are thus true with a proviso which limits the conditions to a certain circle of characters. This is what gives its value to the thesis that science is only so far true as it emulates the mathematical sciences. At the same time it remains that a partial truth is not untrue because it is partial but because the addition of fresh relations may empirically alter the old ones.²

4. *The Relation of Knowing.*—The most interesting of all relations, for the discussion of which the preceding paragraphs have been written, is that between the subject and the object of cognition, the relation of knowing, or, more strictly, of contemplation, for it is clear that enjoyment is not a relation at all, but a state of the self.³ This relation of knowing an object occurs when a thing called the subject, which possesses the property of consciousness, being stirred by some means or other (of which more hereafter) into con-

¹ Bosanquet's *Logic*, vol. i., p. 249. Second edition, p. 234; and in many other passages.

² One conclusion from the above may be drawn. Consciousness itself, we may observe, is empirical. It is in no sense the foundation of the categories; it only has categorial characters like other empirical objects. Hence a statement about consciousness may be vitiated by the addition of other empirical elements as much as a statement about an empirical external thing. Thus I may fancy I am acting from a sense of duty in exposing another man's action. But I may really be doing it from malice. Thus my consciousness may be illusory as well as the objects I apprehend. I was in fact enjoying the malice as well as the duty, but I disregarded it.

For the above section I have derived much help from Mr. Stout's essay on "Error" in *Personal Idealism*.

³ I do not mean that you do not know yourself, but only that to know yourself is not a relation of yourself to yourself. On the question of knowing mental states I have written elsewhere (*Arist. Proceedings*, vol. ix., 1908-9, pp. 25 ff.) and propose to return to the subject.

sciousness of a certain 'direction' finds itself in the presence of an object, not itself, appropriate to that condition of consciousness. In the case of sensation or perception, the act of consciousness is evoked by the object itself; in other cases, those of images, memories, thoughts, the act is not evoked by the object itself through affection of the sense organs, but indirectly. Let us abstract from the manner in which the consciousness is evoked, and we have in all cases of cognition of an object the compresence of two things, the subject in a condition of apprehension, and the object revealed to the extent to which it is apprehended. The relation is thus the whole situation constituted by the togetherness of these two things, so far as it connects them. The percipient enters into the situation as the act of, say, perception; the object, as perceived, that is in the form in which it is perceived. The relation is that of this togetherness. We cannot say, as might be suggested, that the relation is the perceiving. For this is to take the perceiving as containing also the perceived. Whereas the perceiving is but the act of the subject, and the perceived is not an element in the perceiving, but distinct from it and *related* to it in the single situation which is described as their togetherness. Just as the distance of two points is the space into which the points enter and of which they are the limits, so the relation of subject and object is the connectedness of two terms which are respectively the subject as perceiving and the object as perceived.

The difficulty of describing the precise nature of this relation of togetherness is its extremely elementary character and simplicity. No proposition is more frequently heard in philosophy than the statement that the relation of subject and object in knowing is unique and incomparable with other relations. In truth, the uniqueness attributed to it does not belong to the relation itself, but to the character of consciousness which belongs to one of its terms. I feel the wind blowing against my cheek. I am together with the wind, but since the wind evokes in me a consciousness (of a certain sort, or 'direction') I apprehend or know the wind. Substitute for the conscious term of the relation a term such as a plant, which I suppose not to be conscious but only alive, and the togetherness of the living thing and the air is a vital action of respiration. It is no longer cognition, for the one term of the relation has not consciousness. Or substitute for the plant an india-rubber ball which yields to pressure of the hand and then by its elasticity regains its normal form, here again is the relation of togetherness; but there is no cog-

niton, nor even life, but only elasticity of a material thing. Now in each case the peculiar colouring of the relation, its specific character, that which makes it unique, is derived from the nature or the degree of development of the term which enters into the relation. So far as consciousness is a unique property of certain things, the relation of knowing an object is unique. But life or colour or elasticity are in this sense equally unique, that is, they are the characteristic, specific properties of certain types of existence. But it is of course not in this sense that it is maintained that knowing is a unique relation. For that statement implies that knowing is incomparable with any other kind of relation, whereas it has now been shown to be only one form which the general relation of togetherness assumes, when the one term which enters into it happens to be of the conscious type.

It is in fact clear that the relation of togetherness between knowing subject and known object, so far from being unique, is the most general and most elementary of all relations. Abstract from the special togetherness of conscious subject and object; and we have this relation wherever in the world there is connectedness, and this is the elementary condition of there being one world. It is the fundamental relation of which all relations are the developments under more complicated conditions. This needs some further explanation. I do not mean that other relations, such as likeness, succession, causality, are specific forms of togetherness, in the mere sense in which life is a special form of togetherness, or knowing is, according to the phrase just used. For in these last cases the general relation is the same, and the special character is introduced into it by the particular empirical or a *posteriori* character of the terms. I mean that these other relations are specific types or species of togetherness in the sense that they are not mere togetherness, but togetherness under the forms of the categorial or a *priori* elements of things. Thus space and time and causality and quantity are categories of things. Spatial relations are togetherness in space; they are not bare connectedness, but connectedness in the concrete form of distances. Succession is one kind of connectedness in time. We have causality when we have a determinate event, that is an event so together with another in time and space as to be directly or indirectly continuous with it. We have the so-called relation of substance and attributes or accidents when the togetherness assumes the form of connectedness within one portion of space and continuity within a duration of time. But the category of substance raises special questions of its own with which I do not attempt to deal.

Thus the relation of togetherness which, when it subsists between an empirical thing with the empirical character of being conscious and any object contemplated, is called knowing, occurs wherever there are finite individuals in the world, relatively independent or separate, but belonging to one world. The relation is, therefore, the most universal type of relation, or is relation as such. Instead of declaring it unique, it would be truer to say that between any two individuals whatever there subsists a relation such that the one may be said to "know" the other. In this wider employment of "knowing," not only does mind know things, but life "knows" material things and one material thing "knows" another. The table knows the ink-pot which presses on it, the tuning-fork knows the tuning-fork to which it responds. Everything A knows everything else B and enjoys itself. It depends on the special nature of A, whether it is a mind or a living being or a stone or a vibration, how much of B it knows, that is how much and in what shape B is revealed to it. A only knows an aspect L of B if A first of all can be stirred to an activity appropriate to the revelation of L, and, secondly, if it actually is so stirred, by whatever means. But all togetherness (and every A is together with every B) evokes in A and B the possible and appropriate response on either side. Thus, for example, I hear the tuning-fork sounding C, but another tuning-fork which sounds along with it does not apprehend the sound as sound, but let us say it only knows a vibration of a certain rate. Hence, too, may be explained what may at first blush be a puzzle to many. Since I am together with everything in the world, why do I not apprehend these things? I apprehend in fact only a small portion, namely, those with which I am so together that I am in an appropriate act of consciousness. The rest I do not know in the way of conscious knowledge. But my body apprehends some of them in so far as it lives, and others in so far as it is merely material. Thus I am not conscious of the pressure of the air, but my body knows it, though not necessarily as pressure, and my life knows it in breathing it. When my back is turned upon the wall, I do not see the wall, and in general am not aware of it, but my material body does apprehend it.

To say that the relation of knowing is not unique, but is found as between any two finite things whatever within one world is by no means to assert that everything is a mind. The risk of this confusion makes it undesirable to put forward the proposition without the strictest reservation to this effect. There is no knowing in the proper sense unless A is

mind. Even though there is a steady progression from the lowest forms of existence to the highest, we are not justified in so emptying the word mind of its distinctive property of consciousness as to apply it where consciousness is not known to exist. As well declare all minds to be higher forms of matter. In this quandary, perhaps it would be most convenient to say that the fundamental relation of togetherness is that of subject and object and that this is knowing when the subject is a mind. Two things anyhow are to be firmly held: one, that the generic character of knowing is the most elementary of all relations; the other that it is a relation of knowing in the proper sense only when one member of the relation is a mind. Perhaps the assertion of the uniqueness of the knowing relation arises from a dim consciousness that it is in a sense a definition of relation as such. If so, to call a relation unique which is everywhere where there is any relation at all is a strange perversity. But it is almost certainly declared unique because the relation itself is confused with the empirical character of the one term which enters into it; and it was to expose this error that the above long exposition has been necessary.

5. *Experience of Togetherness in Knowing.*—All knowing being thus togetherness of the mind and its object, the question may be asked how is this relation experienced? The fundamental fact of experience is, I have repeatedly said, the fact that I and the object are compresent; and this is declared to be the deliverance of experience itself,¹ an empirical proposition, or rather let us say an experimental proposition. I have also sometimes said every experience gives us in experience two things, myself and the object and the relation between them, or in relation to one another, and it has been pointed out to me that something obscure and ambiguous remained in this statement, and I have myself been beset by the feeling that this is so. This obscurity I desire now to clear up. When I say that in perception, there are myself the subject, the object, and the relation between them, I do not mean that there is a relation of *and* or *together* over and above the terms myself enjoying and the object contemplated. To mean this would be to abstract the relation from its terms, and contemplate it by itself. But the relation is the total situation which constitutes experience. The terms of the relation are the thing enjoyed or myself, and the thing contemplated or the object. The contemplated object is the

¹ I do not mean that it is the deliverance of introspection. What is got by introspection in the experience is the I, which is enjoyed. The object contemplated is got by extrospection. And this account is true whether the object be a perceived object or an image or a thought.

object revealing or showing itself, the enjoyed thing is the mind apprehending, and the total situation is what may be called either the experiencing of the object, or the object's being experienced, according as the situation is viewed from the side of either term of it. The terms as they are thus described are the subject and object as they enter into the relation. There is therefore no "and" or "together" over and above the terms so described. We may indeed suppose the subject and object existing outside this relation and entering into it by the addition of and or together. I may of course happen not to be seeing an object and so not be together with it in so far as coloured. In this sense of special togetherness I may if I choose say that it is added to the terms so far as they are considered outside this special togetherness. But then of course the terms to which the special togetherness is added are not the terms of the special relation considered.

Consequently when I perceive a table, the table and my perception are together, and the fundamental fact of experience is these two things in the relation of together. Now how is the togetherness *experienced*? It is experienced in my enjoyment of the perceiving. In perceiving I enjoy my own act as together with the object contemplated, the table. May we not then also say that I contemplate the table as together with my enjoyment? The answer is negative. What I contemplate is the table, and in enjoying the contemplation of it I enjoy myself together with it. To contemplate the table and also its togetherness with myself would involve two errors. It would mean that I can contemplate myself, which I never can do, and which only an angel could do. And, secondly, it would mean experiencing the relation twice over. I can only contemplate the togetherness of the table with me in the sense that in contemplating the table I am together, and enjoy my togetherness, with it. For I cannot exclude my own enjoyment, and so far as that enjoyment exists the togetherness also exists. Supposing *per impossibile* that I could contemplate the table as together with myself I should be experiencing the relation from the side of both its terms at once, and counting it as I have said twice over.

In order to verify this, let us apply our general principle that a relation is the same whether the terms between which it subsists are two external objects or two states of myself, or myself and an external object;¹ and consider the relation

¹ This may be regarded as a way of stating the method of metaphysics described in *MIND*, No. 81, Jan., 1912.

of togetherness which I contemplate between two contemplated objects, the table and the chair. The relation is that either the table is together with the chair or that the chair is together with the table. In apprehending the table as together with the chair I thereby also apprehend the chair as together with the table. If I say both, I am counting the experience twice over. The reason why this escapes us is because the relation of together is what is called a symmetrical one. If A is together with B, B is together with A. But if A is the father of B, it is clear enough that nothing is added to the account of the relation by saying that B is the son of A. The relation may be described in either way, but not in both ways at the same time. Similarly with the relation of cause and effect. Now in the relation A is together with B, substitute for the contemplated A the enjoyed A, then since I must enjoy the togetherness I cannot also contemplate it, except in the sense indicated above. I am together with B or B is together with me or we are both together. But while an onlooking superior being would contemplate the facts indifferently in any one of these ways, and consequently I am together with the table in precisely the same way as the table is together with the chair (and my experience itself assures me of this, assures me that is that my enjoyment and the table are together as compresent things), yet when I ask how is the relation experienced I must answer that it is enjoyed and is exhausted in the enjoyment.

6. *Experience of the Knowing Relation.*—Having endeavoured to make this clear, I may now go on to ask is the mere togetherness thus experienced the whole of what is experienced in the knowing relation? Do I not also experience myself in a temporal and in a spatial relation to the object? In asking this question, we must ask it generally, in reference to all the various ways of knowing and not merely to the particular case of sensory cognition which calls for special consideration. Do I experience the remembered table or event as not only together with me but in spatial or time relation to me? It is plain that images (and in a certain sense thoughts¹) are themselves extended in space and have

¹ There is perhaps something paradoxical here. But I am content to assume that even where thoughts are not spatial or temporal in their contents, like the thought circle or year, yet the thought is always embodied in some particular. The particular need not be an instance of the thought, but may be something quite different in kind. But my thoughts anyhow seem to need some *point d'appui*: they do not in Mr. Bradley's phrase 'float'. Even in the investigations of Messrs. Watt and his *confrères* the *Aufgabe* is not without attachment to something par-

succession and duration, that is I can contemplate in them relations of time and space. It is clear also that by reflective experience I come to learn that these images or thoughts (I do not mean the imagination or thinking of them) are related in time and space to my body, and so to bodily states which are also (or if you will are attended by) the consciousness of these images or thoughts. It is true also, as I believe, that I enjoy myself in time and space, that is in the identical place and time of certain bodily processes. But when I ask myself does any knowing on my part give me the enjoyment not only of togetherness with the object but of time and space relation to it, the answer is much more difficult. But it must be given, I believe, on the strength of observation, in the affirmative. I do enjoy time relation to the object, in the sense that I apprehend the object as belonging vaguely to one time (not to the same moment of time) with myself. The same precaution must be used to guard this statement as was used before with togetherness. I am not aware of the time relation in the sense that besides contemplating the object I contemplate the stretch of time between myself and the object. To do so would be to contemplate both myself and the object as if they were two events in time outside me; it would be to contemplate not merely the object but its date in time in reference to my experiencing it. I enjoy the time relation to it in so far as the object occurring in time evokes in me, by one way or another, the consciousness which is called apprehending it, and that consciousness has the time character. The same account applies to the case of space. I am aware of the object as somewhere in one space with myself, not necessarily in the same place. And again I do not contemplate the stretch of space between it and myself, which would mean being aware not merely of the object but of its distance from me. But in enjoying myself as in one space with the object I contemplate, I am in spatial relation to it in the only way possible where one term of the relation is enjoyed and not also contemplated.¹

ticular, were it only the circumstances of the experiment. Grant that thoughts subsist while images and percepts exist, yet I cannot think that this means independent subsistence of thoughts; it is rather a means and a very valuable one of distinguishing two quite different but not independent elements in reality. However if any difficulty is felt, the text may be confined to images, though I should not myself know what to say in that case of the relation of self to its thoughts.

¹ Let any one, who at all possesses sensory imagination, test this by thinking of the lines—

The same that oft times hath
Charmed magic casements, opening on the foam
Of perilous seas, in fairy lands forlorn ;

This answer raises however a problem, not as to the fact, but of consistency and of its ultimate metaphysical bearing, which is mentioned in a note.¹

7. *Sensory Experience.*—This appears to me the report of observation, of the experience of the knowing relation in any of its forms. But even if it be denied to be true in general, yet when we ask what is the character of the relation as experienced in sensory cognition, sensation or perception, we have to say that not only is this experienced, but something more. For reflective theory there is a real difference between sensory experience and images or thoughts. A perception is provoked in us by the action of the object perceived upon the

and asking himself whether he is not conscious of the object described as somewhere in space along with himself, that is does not enjoy himself as somewhere in space along with the object. Or let him try the same experiment on

The antechapel where the statue stood
Of Newton with his prism and silent face,
The marble index of a mind for ever
Voyaging through strange seas of thought alone ;

when he will enjoy himself in space along with not only the statue of Newton but the strange seas of thought imagined as present to Newton's mind.

¹The problem is this. Consciousness itself is the most developed empirical thing we know, and it is not surprising that conscious knowing should involve time and space relations, and as we shall see presently in the next paragraph, relations of causality. But these relations do not specially concern consciousness as such, but are categorial. But if togetherness is the most elementary of all relations, and yet we experience when we enter this relation also those of time and space, it would seem that all relation is also temporal and spatial, to say nothing of the other categories. The categories appear thus to come into existence all at once along with bare togetherness. Various questions are thus raised. May there be a unity which is below the level of relations? before there are distinguishable positions in time and space. Such a unity, if it exists, would not be the togetherness we have discussed. Further (to anticipate the next section) if sensory existence, which seems to involve causality and not merely distinction of places and times, is the simplest aspect of *things* and the togetherness of things implies not only time and space but also causality, must we not hold that with the distinction of times and places, there is given also the existence of things? Are then space and time (at any rate space) so immaterial as they are commonly supposed to be and not rather the simplest forms of material existence? I am not able to answer these questions at present. The last in particular, at any rate as regards space, is as old as Descartes. But perhaps the method of examining the actual contents of our experience pursued in this paper may help to the solution of them.

But, whatever answer metaphysics may have to give to these problems of the ultimate constitution of reality, it remains true that no matter what the specific forms of relation are, relation as such, or the most general form of relation, is the mere togetherness which belongs to knowing in its widest sense whether the knower is a consciousness or a material body or a point of space.

sense organs. Whereas in images or thoughts the mental action is not caused by the object contemplated (at least there is always a portion and the distinctive portion which is not so caused), but by something else, either some other mental process or some purely physical internal stimulation. When I see the table, the table affects my eyes; when I image it, I am thrown by some internal cause into the method of mental action to which the imaged table, *i.e.* the table as contemplated with the characteristic defects and advantages of an image, is the appropriate object. It is this circumstance which gives the percept as distinct from the image or the thought its peculiar impersonality in our experience, while in images and thoughts there is always a larger element of personality or idiosyncrasy. But this difference in the actual genesis of the perception affects, it would seem, the experience we have of the relation of knowing in this act. In perceiving, not only are we aware of our togetherness of the object, but as far as I can judge we also enjoy ourselves as the effect of the object which we contemplate. We do not contemplate the object *as* causing in us the perception. On that head enough has already been said when we raised the same question in the simpler matter of togetherness. To do so would be to contemplate both ourselves and the cause, as we contemplate two external things in causal relation. But in enjoying our perception as the effect of the object we contemplate, we are experiencing ourselves in a relation of causality to the object in which we are the effect. This is the enjoyment variously described as the liveliness, or vivacity, or the intrusiveness (*Eindringlichkeit*), or the sensational intensity, of a sensory experience. It may be answered, much in the spirit of Hume upon a similar occasion, that after all though the object causes in us a process of the brain, neither it nor the intervening links between the object and the brain-process are perceived, and the brain-process at any rate we may not even have heard of—without detriment to our perception of the object. But the answer would be irrelevant. For in the first place we do not contemplate the object as exercising contemplated causality upon us (this need not now be laboured further), and therefore our omission of intervening links does not enter into the question. Secondly, while it is true that we know nothing of the brain-process which has the consciousness called the perceiving (that is we do not know it so long as we are perceiving the object), our consciousness that we are the effect of the object is an enjoyment and is not the contemplation of the brain-process. Indeed the fact that we are not aware of the brain-process provoked in us

by the external object is the very consideration which most plainly leads (it was certainly this which led myself) to the conclusion that, in knowing, what we are aware of, or contemplate, is the object itself, for in all causal relations it is not the effect which the patient is aware of but the cause itself, the effect he only enjoys. Thus in every causal relation, instead of saying that the cause exhibits itself in the patient by the effect which it produces, we must say rather that the cause is revealed to the patient as whatever object it is; and the patient is not aware of the effect, but only is in a state of enjoyment to which the cause is revealed or by which the patient becomes aware of the agent. The causal relation is the one which more forcibly than any other demonstrates the relation of enjoyed and contemplated; and what is learnt from it can then be extended to all knowing.

X Thus in sensory experience, as it would appear, it is true (as has often been maintained by philosophers¹) *on the basis of experience itself* that the mind is causally affected by the object which it contemplates, the perceiving act entering into relation with the perceived object as not only together with it, but as an enjoyed effect of it. And implied in the effect relation are relations of time and space.

Moreover, not only do we in perceiving enjoy ourselves as an effect of the object, but we can trace also in the tendency of our perceptual conation to reaction upon the object the reciprocal causality of the patient upon the agent. Not only is it true as a matter of fact that perceptual conation falls under the same type of reaction to stimulus as we have in physiological response to stimulation, but in the enjoyment of the perceptual conation there is contained the enjoyment of that reaction which compensates action.² In other words

¹ This has sometimes been put forward as a postulate, or at least the experiential nature of the fact has not been analysed or explained. Postulates in Metaphysics are to be regarded with the deepest suspicion. Here if anywhere we need not postulates but truths attested by experience, that is as all such truths are ultimately attested, by looking, or intuition.

² I do not mean by this that the reaction falls under the head of mechanical reaction, and is equal to the stimulus, but merely that the action of the stimulus ultimately issues in a movement of reaction, whether a practical or a speculative one; and in the second case though there is no outward bodily movement affecting the object, yet even here, however long delayed, there is in the end outward movement of some sort or other. Not that in reaction to a stimulus there is no mechanical reaction. In perceiving a book for example by sight, there is, as I understand from a physicist friend, a purely mechanical reaction of the eye to the pressure of the light upon it. But the chief business of the stimulation is to release a discharge. On the difficulties of the conception of trigger action or *Auslösung* in this connexion, see W. Ostwald's *Vorlesungen ueber Naturphilosophie* (lecture 17).

the enjoyed causality is also enjoyed reciprocity. I have tried to show elsewhere¹ that mere theoretical perception as distinct from practical perception or instinctive action is also a reaction which, instead of altering the object perceived, issues in other mental processes or in words or gestures. But this while it enables us to see that in perception we enjoy ourselves as cause as well as effect, suggests a further problem. For all knowing, even if not perceptual (imagination or thinking), is also shown to be essentially conative and the difference between so-called practical and theoretical activity to be secondary and to turn on whether the issue of the conation is to modify the object or modify the subject's body or mind. Can we then say that even in imagery and thinking, though there is no enjoyment of the effect of the contemplated object, there is enjoyment of reaction upon the object. This would be a paradoxical result. It would imply that we can enjoy causality upon the object without enjoying effect from the object. That such effect does not exist is clear. When a stimulation in a particular region of the brain makes us think of a friend, the imagination (not the image) is the effect of the internal stimulation which we do not contemplate and not of the friend whom we do contemplate. We do not enjoy ourselves as effect, for we do not contemplate the cause. But the idea of the friend may lead to the same manifestations of joy as his actual presence in perception would produce. Can we say then that we react upon an object which did not itself produce our contemplation of itself? We cannot. Strictly speaking the joyful reaction is the reaction on the stimulus which caused the idea, and this cause is not contemplated. Thus imaging involves a less intimate relation with the object than perception. It is together with its object, but we do not experience, that is we do not enjoy in respect of the object, either the character of being an effect of it or of reciprocal action upon it; though in imaging, in virtue of the bodily reaction or of the tendency which we give to our images in train, we are distinctly aware of our causality in respect of ourselves. We only become aware of causality upon the object when the image is replaced by a percept, and then we enjoy being an effect as well. The imaging conation seeks but does not find an object which shall produce the enjoyment of effect and reciprocity; and its function in knowing is thus that it serves partly, as James and the pragmatists say,² as leading up through practical preparation

¹ "Foundation and Sketch Plan of a Conational Psychology," *Brit. Journ. of Psych.*, vol. iv., pp. 239 ff.

² In saying so I am not accepting the pragmatist account of knowing, that it consists in the ambulatory relation between the idea and the per-

for the direct contact with perceived reality; partly as a step towards thinking.

The case of thinking proper is more complicated, and I am able to touch it only in the slightest fashion. So far as it contains, and it always does contain, ideal elements, it shares that defect with imaging, though its ideas are of quite a different order from images. Since it is speculative willing (a statement for which I must refer to another paper ¹) it involves in a higher degree than imagery the enjoyment of the causality of the thinker. And its result is far different from that of imaging. Imaging finds merely its image. But the office of judging is to establish the connexion of the predicate with the subject of the proposition, to realise the predicate in the subject. Hence judging gives to the ideal predicate the same order of dignity as the subject possesses. If the subject is already presented in sense, as in a judgment of perception, the connexion of the predicate is as real as sense. If the proposition is a universal (The lion is carnivorous) the universal predicate forms part of the reality of the universal subject. The same thing is true if the subject judged is a mere idea of fancy (This fairy had a wreath of roses), or one of memory in any sense of that word (*Paradise Lost* is in iambic measure; he wore a top-hat when I saw him last). Judging, though unlike practical willing, it does not create its propositions, but finds them, yet does thus bring into view the predicate as an element in the subject. And since the act is one of will, and believing is its *fiat*, it is an act of the whole person, and correspondingly the proposition judged is, in being judged, related to the whole world of reality as entertained by that person, which includes all objects of its experience, sensible as well as ideal. Thus, while imaging leaves us with a mere idea, gropes for a sensory object and does not find it, thinking directly or indirectly brings us back into touch with sensible reality. This is true even where our judgment is dramatic, as where we judge the objects of fancy.

cept. If I have not misunderstood, this is the most illuminating way in which the pragmatist conception has been expressed. But this ambulation cannot be knowing, for in having the idea with which the relation begins the cognitive relation is already contained. The ambulation from idea to percept is not cognition in general, but the special case of passing from an imperfect cognition of the object to a completer one. I imagine that this has been overlooked, if it has been overlooked, because of the realistic assumption which pragmatism makes. But if realism instead of being assumed is justified the need for pragmatism disappears. I hope to return to this subject later in connexion with the general problem of knowledge.

¹ *British Journal of Psychology*, vol. iv., p. 262, "Conational Psychology," § 10.

We thus enjoy in thinking our own causality. We do not enjoy effect from the proposition we discover, as we enjoy effect from sensation ; but ultimately our object is related to sense.

The Place of Sensation in Knowledge.—The above throws light on the place of perception or, better, of sensation in knowledge. But as the matter lies outside the direct subject of the paper, I mention it in a note. To some extent I shall be repeating in another form what has been said above. In sensory experience alone have we complete enjoyment of action from without and reaction upon it, enjoyed as effect of the object and causality upon the object. Sensory action is causal reciprocity between individuals. It is not merely that sense constrains us. For our concepts constrain us too ; the concept triangle compels us to believe its angles equal to two right angles. But concepts do not act upon our bodies, or rather they only do so through their individual instances. Compare ideation with perception : the image does not affect our bodies, and our response to the image, even if it is an image of memory or expectation, is always frustrate. It is in fact the frustration of the conation in virtue of which the object is ideal and not sensory. *Per contra* ideas have advantages denied to percepts. Being in a higher degree selective, they may omit the special features of a percept, and it is a corollary from this that they are more diagrammatic, and nearer to the comprehensiveness of thought. Now contrast both with thought. A judgment may be about a particular, and there may be as in sensation causality from the object judged about. But this is accidental, and the causality from the object about which the judgment is made is causality from a percept and not from a proposition which is the real object of the judging. But the essence of the judgment lies in the success of its ideal conation whereby the object judged is seen in a universal light. From this point of view judgment is higher than sensation, though it lacks, *qua* judgment, the direct causal action from the subject of the proposition, which may be a universal. Thinking is further away from sense than image, which is always particular. But it brings us nearer to sense again. For imaging is eminently personal and thought eminently impersonal. The concepts which thought handles might seem at first sight to be the creations of the mind in a higher degree than images. In fact, images are always vitiated by the personality of the mind. The concepts which thought thinks are the comprehensive laws of things, as it were the immortal individuals of which particulars are but the perishing acts. Thus thinking brings us nearer to the heart of things than images, but needs sense for its completion.

But in all alike we are dealing with things objective to the mind and in that sense real. We may distinguish two senses of real : as actual or true and as merely objective. Now images are just as objective as percepts. Moreover, there is not a single feature in an image which is not the appearance of some actual things. But imagery sees partially and sees confusedly, combining different actualities into the same incongruous picture. Sensations are actual but insignificant. It is thought which supplies them with significance. And in its turn thought finds the completion of its objectivity into actuality in sense.

Why it is that sense has this privileged position that being humblest it is most indispensable is a matter for metaphysical inquiry. It is like the food without which a man cannot live, though if he lived only for food he would not get even food. Certain it is we penetrate farther into the nature of things by thought, but the elementary acts of things, which are *sensa*, remain fundamental.

II.—NOTES ON THE PROBLEM OF TIME.

BY J. S. MACKENZIE.

THE problem of time has not only an intrinsic interest of its own, but is very central and decisive with regard to the general attitude that we are to take on almost all the fundamental problems of philosophy. Is time real or unreal, or, as some would prefer to put it, is it really real or only phenomenally real? Is there time in the Absolute, and is the Absolute in time, or has time only a certain degree of reality as conditioning certain aspects of the world of appearance? Such questions as these carry us down to the very roots of metaphysics, and the answers that we give to them must largely determine our outlook on the universe and our view of the place and significance of human life in it. Now, several recent discussions have, I think, helped to give us clearer views, if not with regard to the actual nature of time, at least with regard to the main difficulties involved in its conception and the way in which they may be met. It is my object in this paper to sum up what appear to me to be the main results of such discussions. In doing so, I think it convenient to connect what has to be said with some of the leading points in Kant's treatment of the subject, and especially with the difficulties that are brought out in the antinomies. He stated these difficulties more fully and forcibly than any one else; and, if we can meet the difficulties that he brought forward, we shall be able to feel that we are in a pretty strong position. In order to set the chief topics in as clear a light as possible, I put them in the form of certain definite questions, stated, as far as possible, in the order in which they are dealt with by Kant.

I. *Is the apprehension of time perceptual or conceptual?*
—A good deal of confusion is occasioned in Kant's treatment by the too hasty manner in which this question is answered. Kant decides that time must be regarded as essentially perceptual, and that it may be characterised as an infinite given whole. Now, it certainly seems to be true that there is a perceptual element in the apprehension of time. Beings

that are incapable of thinking, beings that have no notion of number or substance or cause or end, must still, it would appear, have some apprehension of change. To apprehend even the simplest occurrence would seem to imply some awareness of sequence; and it is certain that most of the lower animals do, at least in a practical way, recognise the order in which things have to be taken. A wild cat, we may suppose, is in some sort aware that it has to catch its hare before it can have its meal. But it seems clear that in such a purely perceptual apprehension of time there is no consciousness of it as an infinite given whole. Even a being who looks before and after in a much more definite way than a cat can well be supposed to do, may easily be without any such consciousness as that. It is surely evident, on reflection, that we apprehend time as an infinite whole in the same reflective way in which we apprehend number as an infinite whole. Just as we see that no limit can be assigned to the process of adding unit to unit, so we see that the relation of antecedence and sequence is one that can be indefinitely repeated. Time, therefore, I would urge, is not an infinite given whole in any other sense than that in which number is such a whole. If so, it is clearly conceptual when it is thus represented.

The arguments by which Kant persuaded himself that time is essentially perceptual, are wholly unconvincing; and it hardly seems worth while to consider them here in detail. It may suffice to say that almost all the grounds that are assigned by him for regarding time as perceptual, would justify us in regarding the Universe as perceptual. His chief contention is that what is conceptual is always of the nature of a class notion; and against this we may at once set such concepts as God, the Absolute, the *Summum Bonum*.

I assume, then, that time, though having a certain basis in perception (as most concepts have) may yet rightly—at least when regarded as an infinite form—be treated as conceptual. How far it is right to regard it as an infinite form, is, however, a subsequent question.

II. *Is time to be regarded as a Substance, a Quality, or a Relation?*—Most people would, I suppose, agree with Kant in his contention that time is not to be taken as a substance or quality. The conception of an absolute self-subsisting time—such as Newton appears to have entertained—is generally recognised as having no real foundation. For the present at least we may set any such conception aside. Nor need we very seriously discuss the question whether time

may be regarded as a quality that belongs to certain substantial beings. If we were to take time as a quality, it seems clear that we should have to describe it as a quality that belongs to events; and no one, I believe, regards events as substantial. That it may be described as a relation, is certainly a more plausible view to take. That A comes before B, seems clearly to express a relation between A and B; and such a relation appears to be involved in all apprehension of time. But we may also say that 1 comes before 2, or that the premises come before the conclusion; and in these cases it is at least doubtful whether the relation of before and after implies time. While, therefore, we may say that there are certain relations in time, it may be doubted whether time is properly to be called a relation. Certainly, when we think of time as an infinite whole, we are not thinking of it simply as a relation, but rather as a form or order within which certain relations may be discovered. In this respect also it may be compared with number. The system of numbers is, I think, primarily to be regarded as an order, within which various relations of before and after, greater and less, and the like, may be ascertained. The order of time might be compared also with the order of colours in the spectrum, of intensities in our sense-experience, or of degrees of preferability from the point of view of choice or feeling. In all such cases, an order serves as a basis for the recognition of certain relations; and indeed I am inclined to believe that all relations imply a certain order within which they are apprehended. Time would seem to be essentially such an order, within which the relations of antecedence, coexistence and sequence are contained. Space, I suppose, is a somewhat similar order; but it is one that involves more complex relations.

Time, then, I conclude, is not to be regarded either as Substance, Quality, or Relation; but rather as a Form or Order.

III. *Is time to be regarded as an infinite whole?*—If time is to be taken as a form or order, I believe this question must be answered in the affirmative, so far as concerns its infinity. Every order, I should say, taken simply as such, is necessarily regarded as infinite; *i.e.* there is never anything in an order as such that could justify us in treating any point in it as an end. The order of colours in the spectrum is no doubt a limited order; but its limitations are not due to the order as such. If our senses were finer, we can easily suppose that the order might be indefinitely extended. Similarly, there are no assignable limits to the numerical order, though there

may be limits to the objects to which numerical determinations can be applied. As regards time, there is certainly nothing in the nature of the temporal order as such that could lead us to regard any point in it as a termination; and it seems clear that we cannot even think of a beginning or end without dating it in time. We think of the beginning as something that happens, and that might conceivably have happened sooner; and we think, in like manner, of the end as something that might conceivably have happened later. Hence the concept of time must be taken as being the concept of an infinite order. If, however, time is to be taken as infinite, it must, I think, be erroneous to describe it as a whole. A whole, as I understand it, must mean a determinate quantity, and cannot be supposed to be extensible without end.

Time, then, I should say, is to be taken as an infinite form or order, but not as an infinite whole.

IV. *Is time the form of Inner Sense?*—I think this question must be answered decidedly in the negative. The simplest and most obvious objection is that there is no such thing as an inner sense; but this I prefer not to press, as it may after all be only a verbal point, and might be obviated by a more careful explanation of what is really intended. It is no doubt true that in most cases in which any object is apprehended by us we are aware, not only of the object, but also of the fact that it is apprehended by us; and that, similarly, when we prefer one object to another—whether in the way of what is specifically called choice or in that of simple liking or mere feeling—we are generally more or less definitely aware of the fact that we prefer it. It is probably misleading to call this awareness of our own attitude towards objects a sense; but at least it is a fact of our ordinary conscious experience. We are aware also of changes in our attitudes of apprehension and preference, and so come to regard them as conscious happenings that fall into the time order. This, I take it, is what is meant by saying that time is a form of the inner sense. But this appears to be true only in so far as we are aware of our apprehensions and preferences as involving change, and they are evidently not the only experienced facts that do involve change. Time seems to be apprehended as the order that belongs to everything that is experienced as happening or changing; and there does not appear to be any real reason for regarding the fact of happening or changing as in any special way subjective. Indeed, Kant has himself urged that change involves permanence,

and that we can only have a definite apprehension of permanence and change in their relations to each other when we have some persistent object before us, such as a moving body. Hence I cannot admit that time is, in any special way, the form of inner sense, even when due allowance is made for the unsatisfactoriness of that expression. It is rather the form of the changing. Change is the concrete fact of which time is the formal order.

V. *Can time be held to be only phenomenally real?*—Kant's doctrine of the phenomenal reality of time was met in his own day with the objection that change, at any rate, is real, since it certainly occurs in our own individual experience. Hence time, as the form of change, must also be real. To this he, rightly enough, replies that this only shows that it is, in his sense, phenomenally real. I think it is important to observe, however, that time is in this respect on precisely the same footing as the other orders that we find in our experience—*e.g.* the spatial order, the order of intensities, the numerical order, the order of colours and other sense qualities, the causal order, the order of vital development, the order of preference or value. That objects, as we apprehend them, can be arranged in such orders, is a fact that cannot really be doubted. All that may be doubted is whether ultimate reality, as it is in itself apart from our apprehension of it, falls into the same orders. This doubt may, of course, be met by the deeper doubt, whether it is legitimate to postulate the being of any reality altogether apart from our apprehension of it. But, even if this latter doubt is rigorously pressed, it may still be held that our apprehension of reality may be very inadequate; and this may be held with respect to all the orders to which I have referred, as well as with respect to the time order. All that I wish to urge at present is that all such doubts and counter-doubts have no peculiar reference to time. They affect time just as they affect all the other orders in which objects are apprehended. It seems to me that Kant, in his *Transcendental Æsthetic*, brings forward no real ground for treating Space and Time on a special footing. The fact that they are forms that we cannot get rid of, is surely not a sufficient reason for saying that we ought to get rid of them. It is certainly not a reason that one would expect from a writer who has so much emphasised the mutual implications of 'ought' and 'can'. Yet there does not appear to be any other reason in the *Æsthetic*. The real reason, of course, comes later. It appears in the statement of the antinomies; and the kind of difficulty that is there suggested

affects all the orders within which objects are apprehended. And what applies to Kant's arguments, applies, I believe, to all arguments that have been brought forward. The grounds for holding that time is only phenomenally real are grounds that affect all the forms or orders within which the facts of our experience are arranged.

It is well, I think, to add here at once that even the recognition of the phenomenal reality of time and change could hardly be compatible with a purely Parmenidean conception of ultimate reality, such as Kant and some of his followers appear occasionally to suggest. Plato, indeed, seems to have sought to combine the two positions by speaking of time as 'the moving image of eternity'; but it seems clear that a moving image can hardly be the image of a purely statical object. There may be some inadequacy in its representation of eternal reality; but the inadequacy can hardly be supposed to lie in the fact that it contains some sort of movement or change. A similar objection applies to most of the ways in which the phenomenal is contrasted with the noumenal. There may be some inadequacy in our apprehension of the reality of which order in number, time, space, etc., yield us the images; but at least that reality must, it would seem, contain some counterpart of these orders. We shall be in a better position, however, to consider this, after we have dealt with the special difficulties that are raised by Kant. But, before we pass to the consideration of these difficulties, there is one further point in Kant's treatment that it seems necessary to notice.

VI. *Is the causal order to be identified with the temporal order?*—I understand Kant's argument at this point to be that it is only by the help of a definite causal order that an objective temporal order can be established; and further that, as the temporal order presents itself to us as a necessary one, the causal order, which is the condition of its establishment, must also be a necessary one. He finds the necessity which Hume desiderates in the order of time, and then transfers it to the causal order as the indispensable condition of the temporal one. Now, it certainly seems to be true that, if there were no regularity in the sequence of events, it would hardly be possible for us to arrange events in any order that could be recognised as other than arbitrary. The contention appears to me to be very similar to one that might be made with regard to the existence of genera and species. It might be urged that number is a necessary form of our thinking; and that we should have no means of definitely counting

things if they did not fall into certain natural groups. It might thus be contended that certain 'uniformities of co-existence' are necessary for number, just as certain 'uniformities of sequence' are necessary for time. It does not appear to me, however, that any absolute rigour in these uniformities can be established in this way. All that it seems to postulate is a certain back-bone of regularity in the world that we apprehend. Some degree of flabbiness at the margin would not seriously interfere with the possibility of counting or of establishing an objective order of sequence.

We have to ask, further, whether uniformity in the sequence of events is enough to constitute what we understand by a causal order. Kant, I believe, did not really mean this, though he is sometimes so interpreted. Causation seems to involve the conception of explanation as well as that of uniformity, and this appears to be recognised by Kant. He *assumes*, however, that, in the case of phenomenal events, whether in the material world or in our own conscious lives, the explanation of any occurrence is to be found in its uniform antecedent. This appears to me to be an illegitimate assumption; and, in fact, Kant has to admit in the end that such an explanation never does explain. It would be just as reasonable to say that we are to look for the explanation in what follows as in what precedes. No doubt there are reasons that make it more natural for us to look backwards. The future is in general dark to us, whereas the past is comparatively well known; and it is natural that we should look for the explanation of the present fact in what is known, rather than in what is unknown. In reality, however, it does not appear to me that any satisfactory explanation can be found in either direction. Causation, as Kant allows, is a particular application of the conception of ground; and I think Spinoza is right in urging that the only kind of ground that is ultimately satisfying is the apprehension of an intelligible system within which the particular fact falls. In such cases as numerical and spatial relations we do not ask for any cause outside the particular system with which we are dealing. These systems present themselves to us as necessary orders, and we simply accept them as such. It is only when the facts with which we are dealing do not present themselves as parts of a necessary order that we look about for external causes. Events in time present themselves as more or less contingent; and this fact leads us to search for some ordered system within which they may be regarded as falling. We are only partially successful in this quest; but the degree of success that we attain gives us a certain confidence in pursu-

ing it farther. The faith by which scientific inquiry is thus guided is the faith that the apparently contingent is really part of an intelligible order, though the precise nature of that order is unknown. What I chiefly wish to urge here is that there is no particular reason for supposing that the way to discover the nature of that order is by going back to antecedent occurrences. The way in which I wish to apply this contention will appear later.

VII. *Can we think of a beginning of events in time?*—When we regard time simply as the form or order within which events occur, it is evident that there can be no ground for thinking of it as having either a beginning or an end; just as a straight line, regarded simply as a direction in space, has neither beginning nor end. In this respect time might once more be compared with number. Number, indeed—at least when it is treated as essentially ordinal—has a beginning, but we cannot assign to it any end. But the infinite, in the sense of the endless, seems to be a conception that is only applicable to empty forms. Everything concrete is determinate. Though number has no end, there are definite limits to all numerable things—even to the sands on the seashore or the stars in the firmament or the distinguishable moments in the duration of a planet. Can we say, in like manner, that there may be definite limits to the totality of the events that occur in time? If there can, it would seem to imply that there are limits to time itself, regarded as a concrete order of happenings, and not simply as an empty form. The beginning of real change would be the beginning of real time; and, in like manner, the end of change would be the end of time. Nothing could be said to be before the one or after the other. We could only say that there is nothing in the nature of the time order as such to prevent the occurrence of something before the beginning or after the end. Now, can we really suppose that there is any such beginning and end? It can hardly be necessary here to recall the arguments that are given by Kant on both sides. Those who have sought to throw doubt on his conclusion have generally attempted to show that his arguments against the infinity of the time process are inconclusive; but I confess I cannot see how his main contention on this side can be controverted. If events in time have no beginning, it seems clear that an endless series of events has somehow been completed. It puzzles me a good deal to understand how any one who reflects can miss this point; and yet if any one fails to see it—as some evidently do—I hardly know how it can be put

more clearly. I can only suppose that the failure to see it arises from not sufficiently distinguishing between the pure form of time and concrete happenings. The mere form of time can easily be supposed to have no beginning, because it has no real existence. A purely formal series—such as . . . p^n, p^{n-1}, p^{n-2} . . .—need not be supposed to begin or end anywhere; but any concrete event—such as the writing out of such a series—does begin and end. If we start from the present and reckon backwards, there is no reason why we should come to an end at any point; and so we say that, from a purely formal point of view, there is no beginning of the time order. But things that have been happening are not pure forms. To suppose that they have no beginning is to suppose that they have begun and yet not begun—begun sufficiently to reach a definite point, and yet not proceeded from any definite point. Motion is change from some position to some other position. There cannot be a motion from nowhere to nowhere; yet this is what an endless motion would mean. And what is true of motion is true of any change. Change is transition from something to something else, not transition from nothing to nothing. I give these various statements in the hope of making the significance of Kant's contention more apparent; but his own way of putting it is, I think, the right way; and, in the end, if that is not clear, nothing will ever make it clearer.

On the other hand, Kant's argument against the finiteness of the time series does not appear to me to be at all conclusive. 'As nothing can begin to be,' he says, 'which has not been preceded by a time in which the thing that begins was not, we must hold that there was a time antecedent to that in which the world began to be, that is, an empty time.' To this it is, I think, a sufficient answer to say that an empty time is nothing. To say that there is an empty time before it is merely to say that it is abstractly conceivable that something might have happened before. But the question is not with regard to what is abstractly conceivable, but to what did take place. A real beginning would not merely be a beginning *in* time, but a beginning *of* time, in the only sense in which time has any concrete reality. Kant seems to recognise this point more clearly in the case of space than in that of time. He says that 'the relation of the world to empty space would be the relation of it to *no object*'. Surely the relation of a beginning to empty time would be a similarly empty relation. To take the analogy of numbers again, it is no doubt true to say that any integer may be regarded as being generated by the addition of unity to the integer that

immediately precedes it in the order of the numbers. Hence it might be said that we can never make a beginning with such a series ; for the number one would have to be thought of as formed by the addition of unity to zero ; and, as zero is nothing, this is impossible. But it is surely a sufficient answer to say that unity does not need to be added to zero. It simply steps out and is there as the first of the integers. Similarly, I should suppose that the first occurrence in the universe of events might simply step forward as that from which change sets out. You may object that, in that case, it must be supposed to step forward from the changeless ; and that thus the changeless would be the real beginning. Well, there may be a sense in which that is true. The time world may be only one aspect of the universe as a whole. Perhaps it may even be conceivable that there are other time orders that diverge in some way from the time order that we know. I am only urging that the world of time events that we as human beings apprehend may be supposed to have a definite beginning. Such a real beginning of time as we know it would not be a beginning *in* time as we know it, and would not need to be related to anything that comes before it. The fact that, from a purely formal point of view, the time order may be supposed to go further back, is a fact of no real importance. In a purely formal way we may suppose something darker than black and brighter than white ; but this does not make it any the less true that black and white are the real ends of the scale of brightnesses and darknesses as we know them. In like manner I would urge that there may quite well be a beginning and an end of change ; and that this would be the beginning and end of real time. There is, indeed, a difficulty in supposing this ; but it is not a difficulty that is specially concerned with the nature of time. It is causal, rather than temporal, in its character. If the events in the universe ever started, we are naturally led to ask—How did they come to start? Did they simply happen to begin? The difficulty here is not with regard to a first point in time, but rather with regard to a first cause. But this seems to be the difficulty that Kant has chiefly in mind with regard to a beginning of the time series. ‘Nothing,’ he says, ‘can come to being in an empty time, for no part of an empty time has in it any condition of existence rather than of non-existence, which distinguishes it from any other part ; and this is true, whether we suppose things to originate of themselves, or to be produced by some other cause.’ The consideration of this difficulty, however, carries us over from the first antinomy to the third.

VIII. *Can we think of anything that could be regarded as causa sui?*—Against such a conception it is urged by Kant that, at any rate, nothing of the kind is to be found within the time series. 'Every beginning of an act,' he says, 'presupposes a state in which the cause has not yet begun to act, and a dynamically first beginning of the act presupposes a state of that cause which has no causal connexion with the preceding state, and in no way follows from it.' It must be remembered that, notwithstanding this declaration, Kant is afterwards led to affirm the necessity of recognising some form of free causation as a postulate of the moral consciousness; but of course he has to admit that it is wholly unintelligible. Let us ask, however, whether his argument as given in the statement of the antithesis under the third antinomy is valid. It is valid only if the view of causation as involving dependence on a temporal antecedent is a sound one; and this I have already indicated some reason for questioning. Certainly, if everything that happens is to be explained by a previous happening, a first happening would be quite inexplicable. But, as Kant himself brings out in the argument for the thesis, there is in any case no possibility of finding any real explanation of happenings in other happenings. The recognition of this ought to lead us to see that a real explanation must be of quite a different kind. I have already urged that, when any series of related things can be viewed as a systematic order, the particular relations within that order are sufficiently explained by the nature of the system, without reference to any particular causes outside the order. There may, indeed, still be some call for an explanation of the system itself—*e.g.* the system of numbers or of space—as a whole. But it seems clear that the explanation of this at least could not be found in any *happening*. It is hard to see how the explanation of an order could be found in any other way than by bringing it within some more comprehensive order. It is only in the case of apparently contingent happenings that we are tempted to look for an explanation in other happenings; and this fact naturally raises the question, whether we ever find any explanation there.

In what sort of cases can it be maintained that we find an explanation of a happening? It is of course easy to answer that we find explanations of certain happenings, such as the fall of stones or the motions of the planets, by bringing them under a general conception, such as that of gravitation; and it is equally easy to retort that such a general conception does not help us to explain, but only to sum up the facts that call for explanation. A better answer may be found by pointing

to cases in which we can explain a happening by a purpose or by a process that can be teleologically interpreted. When a stone is thrown up, we seem to have a more direct explanation of its ascent than of its subsequent downward path. When we watch the growth of a plant, each stage in its development receives some sort of explanation from the fact that it is leading on to the next. Can it be held that these are instances of a true causal explanation? I think it may at least be held that they bring us somewhat nearer to an explanation than the mere pointing to a temporal antecedent does. The reason is, I should suppose, that they bring us nearer to the recognition of an intelligible order.

It is hardly necessary to remind ourselves here that it was on this account that Anaxagoras seemed to Plato and Aristotle to be a sober man among those who idly babbled. By naming 'Nous' he seemed to point to an intelligible principle of order; and it may at once be asked whether the recognition of such a principle would not suffice as a solution of Kant's antinomy. May not the 'Form of Good,' as Plato might have put it, serve as a sufficient first cause, which may truly be regarded as *causa sui*? I think it is at least worth while to consider this somewhat carefully.

We certainly seem to find in our experience what I have already referred to as an order of preference. Some things appeal to us as being better than others. We also seem to find that this fact of preference may have a place in the causal order. The fact that I prefer one thing to another seems to lead to changes in the way in which images come up before my mind, and sometimes in the way in which bodily movements take place, leading on to movements in other things—in short, to all those phases of experience that are commonly referred to by the term 'activity'. Now, if the recognition of something as good may be a cause, may it not also be a first cause, may it not also be *causa sui*? It is at least in cases in which a good is chosen that we seem to come nearest to what is thus described.

I take the essence of Plato's view to be that the conception of the Good or Perfect is the only one that can be taken as self-explanatory, and consequently the only one that can be accepted as *causa sui*.¹ Socrates is represented as saying

¹ I choose Plato's conception of a Form of Good here, in preference to Hegel's 'Absolute Idea,' mainly because it is simpler and does not raise so many controversial points. But I believe Hegel's conception to be substantially the same. The Absolute Idea is the conception of a self-explanatory system, in which the end returns upon the beginning.

that, if anything could be shown to be the best, he would not ask for any other cause. Of course, this implies a spiritual view of the universe. It is only within a system that is essentially spiritual that the Good could be regarded as an ultimate explanation. But within such a system it certainly seems possible to contend that, if it could be shown that a certain line of development is that by which what is perfect is achieved, the order through which this comes about might then be regarded as a perfectly intelligible order; and it might then be urged that there is no real point in asking for any further explanation. We only ask for explanation, it may be said, when there is some appearance of contingency or disorder: in a perfectly intelligible order no explanation would be called for. Such an order, it seems clear, would have a definite beginning and end; and in this way the time series as a whole would be fully accounted for. Of course it is true that Plato himself did not put the matter quite in this way. He thought of the Form of Good as eternal; and, treating the eternal as timeless, he regarded the time process as only an imperfect copy of the eternal reality¹—a view that seems to be reproduced in Kant's theory of immortality and (in a different way) in Green's doctrine of the reproduction of the eternal consciousness. But it will be generally agreed, I think, that in that case the appearance of a time process at all is perfectly unintelligible (as Green, at any rate, appears to admit). The question for us here is—Does it become more intelligible if we regard the eternal as containing time, and, if so, can we really regard the eternal as containing time? This leads us to the last question that I intend to raise here. If it can be satisfactorily answered, there seems to be some possibility of finally disposing of Kant's antinomies. I confess I do not see in what other way that would be possible.

IX. *Can there be a time process in the Absolute?*—Certain difficulties at once present themselves to any attempt to regard time as being contained within the eternal; and I must now endeavour to deal with these in the order in which they seem most naturally to come up.

1. It may be urged that what is eternal cannot possibly be

The methods by which Hegel unfolds the content of this Idea, and makes the transition from it to the concrete worlds of Nature and Spirit, are, however, highly controversial.

¹ It does not appear to me that any similar criticism could be made on Hegel. He seems to regard the time process as an essential aspect of the eternal reality.

conceived as existing in successive moments. The essence of time, it may be said, lies in the fact that, when one moment in it is real, all the others are unreal. It certainly seems to me that, if time is to be included in eternity, this view of the nature of time must be denied; and I think some recent discussions about time have helped to show that it is erroneous. I would urge that the most important aspect of time is one that is the very reverse of what is here suggested. It is that no moment in it can ever be taken as real apart from others. If time consisted simply of successive moments, there would be no such thing as time. The existing moment would be verily the only moment of which we could take any account; and that moment would be perfectly timeless. It would be a Now without a Then. No Now that we experience ever has this character. It always, as it were, carries a Then—or rather more than one Then—wrapped up within it. Time does not consist of moments, but rather of the flow that binds moment to moment in a single continuous order. To this it may be added that, in our apprehension of time, there are very various degrees in the adequacy with which its continuity is recognised. We commonly say that the lower animals live in the present, though it is pretty clear that even for them the past and the future are to some extent implied in the present; and also that what we call their present can hardly be regarded as an indivisible moment. In the human consciousness, on the other hand, the reference to past and future is much more explicit; and sometimes, in particular, what is past becomes almost as vividly real to us as what belongs to the present. This does not in any way interfere with the time order, but only with the transience of its constituent moments; and it seems to be a quite intelligible supposition that the reality of the whole time order might be realised by us without its thereby ceasing to be a real time order. We approximate to this kind of cognition whenever we apprehend any complex occurrence as a whole—*e.g.* when we appreciate a tragedy as a work of art. We think of it then as a whole that has a certain permanent being, and yet as a whole that contains successive parts. Its temporal aspect does not interfere with its eternity.

2. It may be urged, however, that this kind of cognition of the continuity of time is, at any rate, only possible after a certain period of time has elapsed; and that, in the case of the time process as a whole, it would only be possible at its close; so that the time process could only be supposed to reveal its eternity in the act of vanishing away. To this I think it must be replied that we certainly cannot think

of the time process as vanishing away. The moment in which its eternity is revealed is the moment in which it appears as a persistent order. The fact of its being an order that consists of successive moments is then seen to be only one aspect of its being. Suppose, by way of illustration, that a human being were to develop to such a complete consciousness of himself that his whole life presented itself before him in all its details as a connected order. Such a being would have reached the end of a time process; yet the whole process, without thereby ceasing to be a time process, would be equally present to him in all its successive parts. Of course, in thus thinking of a particular individual, we naturally suppose that the process of time goes on after he has had this experience. In the case of the universe as a whole, it is perhaps true to say that we can only apply a similar conception by supposing that the end returns upon the beginning; and it is certainly difficult to make this quite intelligible. The consideration of the next difficulty, however, may possibly help us in some degree to deal with this one.

3. The next difficulty that may be urged is that it is hardly possible to understand how such a self-contained and self-explanatory time order could be supposed to begin. At the beginning of it, it would seem, the explanation of it would not yet have presented itself. It would only be implicit or potential; and it may be asked whether this would mean anything more than that it is non-existent. 'A naked possibility is nothing.' To say that anything is implicit is only to say that it is *not* explicit: to say that it is potential is only to say that it is not actual. Yet it would seem that this is all that could be affirmed of the perfect order at its first initiation. It would step out at first, so to speak, in the hope of finding something to account for it at the end. It hardly seems possible to make this intelligible without supposing that the end is in some way present from the beginning. Perhaps the analogy of a tragedy may help us a little again. In reading a tragedy for the first time, or witnessing its performance, it is only when we reach the end that we become aware of its significance as a whole; or, if we have some premonition of it from the start, this is mainly due to the fact that we have had some previous experience of similar tragedies. On a second reading, however, some consciousness of its significance as a whole may accompany us throughout; and for the author some such consciousness may be supposed to have been present from the first. Is it not an intelligible supposition that, in the case of the time process of the universe also, the meaning of the whole may be, in

some such way, present both at the beginning and at the end, and may also somehow be a constant accompaniment throughout the process of its unfolding? I am well aware that the suggested analogy cannot be very closely pressed; but it may at least serve to show that the conception of a rounded whole, which yet contains a time process within itself, is not altogether unintelligible. There are facts in our actual experience that approximate to it; and it is probably only by the help of such approximations that we can ever hope to arrive at any inkling of the secret of the universe. It does not thereby cease to be a mystery. Would it not, after all, be somewhat surprising if the account that we have to give of the nature of the universe as a whole were not in some degree puzzling and mysterious? If our interpretation is not absolutely self-contradictory, that is at least something to be thankful for, and is perhaps all that we ought to hope for.

4. It may, however, be urged at this point that it *is* self-contradictory to suppose that a perfect whole can contain anything of the nature of growth. If it grows, it may be said, it cannot be called a perfect whole at any point in the process. Obviously it cannot have reached perfection at any point *before* the end; nor can it have reached it *at* the end, for, if this were perfect, there could not be any necessity for the process that goes before it. Thus a perfect whole which grows could never at any time *be* perfect. Its perfection would never exist within it, but could only be supposed to be there for any one who might be able to observe it from without. Is this intelligible? Well, I think we may at least answer that we do not really know what constitutes perfection. We only know perfection as the ideal of a limit to which we seem to see certain approximations. Now, it can hardly be denied that some of the most perfect things that we know seem to contain the element of growth; and in some cases this element would even appear to be a necessary aspect of their perfection. I have already more than once compared the universe to a tragedy. It is a comparison that has been recently made by Mr. Russell in a very impressive essay. But I suppose it must be allowed that a tragedy would hardly realise our ideal of perfection. It represents only the Form of Good thwarted and baffled and yet affirming a certain unconquerable excellence that cannot wholly die. But it may be just as conceivable to think of the universe as a sort of Divine Comedy; and, if we add that the significance of the play is in some way present from the first and throughout its course, it is at least not obvious that such a Divine Comedy might not be the most perfect

whole that could be conceived. Have we any positive conception of anything that would be better?

5. It may still be urged, I suppose, that it is not really possible to think of any actual universe as a perfectly intelligible whole; since anything actual is determinate, and all determination implies some negation. However perfect a universe may be, the mere fact that it is a universe seems to imply that it excludes something else that might have been, and the inclusion of which might have added to its perfection. It is vain to speak of a best of possible worlds. What can there be to prevent the possibility of another that would be better? How can there be limits to what is perfect? And yet how, without limits, can there be anything definite at all? There must be some individuality, it would seem, in any actual existence, and that implies some contingency—something that might have been otherwise. It may be urged, therefore, that there must always be some irreducible surd of particularity in the actual universe—something that cannot possibly be made completely intelligible. Does not this necessarily prevent us from regarding the universe as a completely intelligible whole? However well rounded the order may be, must there not be within it something of the nature of an arbitrary exclusion? Any analogy that we may take would serve to illustrate this. Shakespeare's *Othello* was written in English, Dante's *Divina Commedia* in Italian, Goethe's *Faust* in German. We can give very good reasons for this in each case; yet the essential significance of the poems would not necessarily be lost by translation. The language is an accident. Now, the question is—Must not any definite universe contain some such accidents, and how can these be reconciled with the conception of a completely intelligible and self-explanatory system? To this I can only answer that a certain sort of contingency may be a necessary element in a completely intelligible whole. It may be part of its perfection that it might conceivably have been different. Hegel, who is generally regarded as the most thorough supporter of the doctrine of a perfectly intelligible universe, yet seems to admit an element of contingency in Nature; and it is not obvious to me that there is any necessary inconsistency in this. If the nature of the universe is determined by anything that can properly be characterised as a Form of Good, it seems clear that this cannot allow of the exclusion of anything that would make it better; but it is not apparent that it may not exclude something that would be equally good. But, until we know much more than we do about the essential elements in what is good or perfect, it would be rash to affirm that even this is a necessary supposition.

6. But, if this is all that we can say, it may be asked whether we are really helped by such a conception. If we do not know what is meant by perfection, are we any the wiser for supposing that the universe is perfect? May we not just as well suppose that it is a blending of good and evil, and that they have simply happened to come together in a certain combination that we cannot at all explain? May we not suppose that there are certain orders in the universe, but that we cannot regard it as a completely intelligible whole? I think we may. There is something of mystery in the structure of our universe; and it may be that in the end it is an insoluble puzzle. But, at any rate, we can hardly rest satisfied with such a view. So long as there is any possibility of regarding the universe as an intelligible order, we are bound, I think, as intelligent beings, to make an attempt so to regard it. It is the aim of all sound philosophy to show, as far as it can, that, though the world in which we live is puzzling and bewildering, yet the study of it does not lead us anywhere to a blank wall, a blind alley, a sheer contradiction. But the mere entertainment of such an aim seems to imply the ultimate faith that the Universe can be viewed as a genuine whole and that, when fully seen, it is a perfectly intelligible order. My object in this paper has been simply to try to make clear that we need not altogether despair of being able to regard even the time process as at least a part or aspect of such an intelligible order. If this can be shown of time, it certainly seems to me that there is no other aspect of which we need despair. From the first dawn of speculation till now, from the time of Parmenides and Zeno to that of Mr. Bradley and M. Bergson, there has been no other problem that has seemed so baffling as that of time. Yet to doubt the intelligibility of time is to doubt the intelligibility of life itself. Well, if we cannot understand it when we think of it as fleeting, we may perhaps succeed better by thinking of it as eternal. Time, in which all things pass, may itself be timeless, in the sense that it does not pass. It may be an essentially unchanging order in the abiding whole of reality. It may be an inseparable aspect of the life of the Absolute, though the Absolute cannot be held to be in it. Such a view, at any rate, is the only one that seems to me to be finally coherent. I can only think of time as one of those eternal forms that are contained in the life of the Spirit (if Spirit is the proper name) whose dream or vesture or emanation is the Universe. The only intelligible view of the Universe seems to be that it is a comprehensive order within which all the subsidiary orders that we apprehend have a determinate place; and of these subsidiary orders time, it would seem, is one.

III.—THE ANALYSIS OF ΕΠΙΣΤΗΜΗ IN PLATO'S SEVENTH EPISTLE.

BY A. E. TAYLOR.

THE question as to the genuineness of the seventh of the thirteen letters contained in our Plato manuscripts is one of considerable importance for the History of Philosophy. If the letter is really the work of Plato, it throws a flood of light on the philosopher's early life, particularly on the nature of his relations with Socrates and the causes by which Plato was led to abandon the career of public life as an Athenian statesman, which would have been normal in a man of his birth and endowments, for the vocation of a φιλόσοφος. It is further, on the hypothesis of genuineness, of great value as giving us an authoritative version of the reasons by which Plato was led in later life to attempt an active intervention in the affairs of Sicily, and his grounds for holding that the death of Dion was no fatal defeat for his "cause". Hence a discussion bearing on the question seems not altogether outside the province of a distinctly philosophical review like MIND. It is not, however, my object at present to examine the whole literary problem created by the *Epistles* in general, or by our letter in particular. In view of the present state of the controversy, I feel justified in assuming that the evidence, both from style and from historical allusions, is overwhelmingly in favour of the view that the seventh *Epistle* is, as it purports to be, a document belonging to the years immediately after the assassination of Dion by Callippus, and presumably, therefore, a genuine letter of Plato. There remains, however, a difficulty which is neither historical nor literary but philosophical, and it is this difficulty which I propose to discuss, and, if possible, to remove. The most remarkable passage in the letter (342 a, 344 d), a digression which professes to give the justification for the well-known Platonic view that "philosophy" cannot profitably be communicated by books, but only by the direct and long-continued personal intercourse of mind with mind in the common pursuit of truth, has given great offence to students who have pro-

fessed themselves unable to perceive its drift, or to feel sure that what meaning it has is genuinely Platonic. I therefore propose, to the best of my ability, to argue that the whole section has a definite purpose, that its leading contentions are in principle sound, and that good Platonic authority can be adduced for them. An examination of the passage is the more indispensable that Constantin Ritter, who strongly defends the genuineness of the letter as a whole, regards this passage as a later interpolation,¹ and that Mr. H. Richards, in his recent *Platonica*, not only speaks of its presence as possibly an "insuperable difficulty" for those who ascribe the letter to Plato, but loads the digression itself with terms of disparagement, such as "rignmarole," "skimble-skamble stuff," and the like.

I will divide my treatment of the subject into two main parts. First I shall urge briefly, against the theory of later interpolation, that the digression is strictly relevant, and indeed necessary, in the connexion in which it stands, and next, in answer to the charge of unintelligibility, I will translate and interpret the passage in question as carefully as I can, adducing such parallels from the Platonic dialogues as suggest themselves to me.

I. *Relevancy.* That a statement showing why it is futile to convey the deepest truths by means of written hand-books (*τέχναι*), is relevant to the matter in hand is clear from what has been said immediately before. The object is to prove that the reprehensible proceedings of Dionysius are no legitimate fruit of the Academic philosophy. For Dionysius had by no means heard the whole Platonic doctrine from its author in the days of their friendly intercourse. Indeed, he had not even asked for a full exposition, for "he professed that he already knew for himself and was sufficiently master of many things in it, and those the most important".² Since then Plato has heard that Dionysius has actually written a hand-book (*τέχνη*) on the subjects of their conversation, in which he has gravely misrepresented its purport (*γεγραμέναι αὐτὸν περὶ ὧν τότε ἤκουσε, συνθέντα ὡς αὐτοῦ τέχνην, οὐδὲν τῶν αὐτῶν ὧν ἀκούει*). That is, he wrote the hand-book on his own initiative, took the credit for its contents to himself and totally misrepresented Plato's views on the matters which had been discussed). The writer of the letter does not know whether this report is true, though he knows of others who have

¹ See his *Neue Untersuchungen über Platon*, Essay 7, *Platon*, i., p. 8.

² 341 b, πολλὰ γὰρ αὐτὸς καὶ τὰ μέγιστα εἰδέναι τε καὶ ἱκανῶς ἔχειν προσποιεῖτο διὰ τὰς ὑπὸ τῶν ἄλλων παρακοάς, *sc.* from the imperfect accounts he had received from friends of Plato before Plato's own arrival.

done the same thing, οἷτινες δὲ οὐδ' αὐτοὶ αὐτούς; that is, I suppose, the authors in question had not enough genuine self-knowledge to be aware of their own unfitness for such a task. He will only remark that all past and future writers of books "who profess knowledge of the matters to which I devote myself (περὶ ὧν σπουδάξω), cannot possibly, in my opinion, understand one whit of the business. There is not, and God forbid there should ever be, any work of my own on the subject,¹ for it cannot be expounded (ῥητόν γὰρ οὐδαμῶς ἔστιν,—a play on the mathematical meaning of ῥητόν, 'exponible') like other branches of learning (μαθήματα). It is only from long-continued personal association in the business, and a common life" (ἐκ πολλῆς συνουσίας γεγυμμένης περὶ τὸ πρᾶγμα αὐτὸ καὶ τὸ συζῆν), that suddenly, as it were, the fire bursts forth from one soul and enkindles (sc. in the other) a spiritual flame which thenceforth feeds itself" (341 c). Consequently, the letter goes on, if it were really possible to put the "essence of Platonism" into a written book, the proper person to write the book would be Plato himself, the very man who would feel most distress if the work were ill done. Hence "if I had thought these matters could be adequately written about for the general public, and were exponible" to it, what nobler task could I have had in life than to write things of so much service to mankind and bring Nature to light for all to look upon?" (341 c). But the author's opinion is that there are very few men who can be benefited by being urged to study such subjects, and they are just those who can be trusted to discover truth for themselves with a little preliminary guidance (διὰ μικρᾶς ἐνδείξεως). In most men the reading of philosophical works either leads to an undeserved contempt for what they find above their intelligence or to idle vanity about their attainments. Thus far the introductory page on which the much-decried bit of analysis follows. The writer then goes on to make a special application of his general thesis to the case of Dionysius. He remarks that the most appropriate test of capacity for philosophy in a "prince" is to give him some initiation into the

¹ Cf. Ep. II. 314 c, οἳ δ' ἔστιν σύγγραμμα Πλάτωνος οὐδὲν οὐδ' ἔσται. If these are not, as I believe them to be, the actual words of Plato, they must be regarded as copied from the present passage, which, in that case, must have been regarded as genuine by the—admittedly fourth-century—writer of Ep. II.

² That is, from the effort to lead the βίος φιλόσοφος is common.

³ For the repeated play on the word ῥητόν cf. Rep., 546 b; here the word has primarily its literal sense, but there is a pretty clear allusion to the specially mathematical sense to which magnitudes commensurable with a "proposed" standard are said to be ῥητά (Euclid, *Elements*, x., def. 3).

subject and then observe the effect, and discover into which of the three classes just enumerated he falls. Such a *πείρα* he says he applied to Dionysius. He had one philosophic conversation with him, and found that the young king asked for no more, but claimed to be henceforth qualified to "philosophise" on his own account, and is even reported to have composed a written work on *φύσις*.¹ This gives the opportunity for a long restatement of the familiar Platonic view that written works are an inadequate vehicle of philosophical education. The central part of this restatement is taken up by an attempt to show that the doctrine in question necessarily follows from the nature of the problems of *ἐπιστήμη* on the one side, and the character of written and spoken language on the other. It is this passage (342 a-344 d) to which Mr. Richards takes special exception (though all the time regarding it apparently as an integral part of the letter). The writer then returns to the subject of Dionysius and his book (344 d), and tells us, in effect, the final verdict to which the application of his *πείρα* to Dionysius has led him. This is, as we should expect, highly unfavourable (344 c-345 c). Now it seems to me that the whole passage from the end of 341 a, where we first hear of the application of the *πείρα* to Dionysius, down to 345 c is so closely coherent that it would be impossible to excise any minor part of it and yet retain the rest. We cannot, for instance, hold that the letter as a whole is genuine, and only the particular digression about *ἐπιστήμη* and language, to which Mr. Richards so strongly objects, spurious. For where, in that case, are we to look for the close of the interpolation? It cannot be placed *before* the return to the case of Dionysius and his book at 344 d, because the allusions in 344 b to the *ὀνόματα*, *λόγοι*, and *ὄψεις* which serve as intermediaries of communication of knowledge are hardly intelligible apart from the full account of what is meant which was given on pages 342, 343, and further because the metaphor of the kindling of the flame of *φρόνησις* and *νοῦς* by the personal intercourse of questioner and answerer in that section is a conscious reversion to the exactly similar metaphor of 341 c. Nor can we reasonably regard the interpolation as ending at 344 d 2, where the letter reverts to the

¹ It would probably be wrong to take the reiterated allusions to *φύσις* as the topic of the conversation with Dionysius and of the alleged *τέχνη* as concerned specially with *φύσις* in the Aristotelian sense. *φύσις* throughout the passage apparently represents the subject-matter of *φιλοσοφία* or *ἐπιστήμη* in general; that is, it means *τὸ ὄν* or *τὰ ὄντα*. So when we read in *Theaetetus*, 173 c, of the mind as *πάντα πάντα φύσιν ἐρευνωμένη τῶν ὄντων ἐκάστου ὅλου*, the context shows that this includes ethical reflexion as well as the astronomy and geometry which have just been mentioned.

subject of Dionysius, because, when the long digression has been removed, the words with which the next paragraph opens, *τούτω δὴ τῷ μύθῳ τε καὶ πλάνῳ ὁ συνεπισπόμενος εὖ εἴσεται κ.τ.λ.* have nothing left to which they can refer. It is the digression itself (342 c-344 d 2) which is the *μῦθος* and *πλάνος* in question. Consequently Mr. Richards' view that the digression on *ἐπιστήμη* is senseless cannot be held by any one who regards the seventh letter in the main as genuine, unless he is prepared to excise not only the piece of analysis contained in 342-343 but the whole of the pages which deal with the interview in which Plato applied the *πείρα* to Dionysius and the results which he obtained.

Thus I think we may fairly say that if there is an interpolation at all it must extend to the whole of the pages which Ritter wishes to excise; every allusion to the supposed "book" of Dionysius must go out. Let us see then what the result of so considerable an excision would be. The genuine Platonic letter will run as follows, if we epitomise its argument from the beginning of 340, where Plato is explaining that in coming to Syracuse for the third time he was sacrificing his own judgment to that of Dion and Archytas who thought well of the "philosophical" qualifications of Dionysius (339 c): "I undertook the journey with grave secret misgivings. When I reached Syracuse I thought it my first duty to find out whether Dionysius had really been 'set on fire' by philosophy, as was reported, or not.¹ The most becoming way of ascertaining this in the case of a prince (*ὄντως τυράννοισι πρέπων*, 340 b) is to make it quite clear to him that philosophy is a big thing and only to be acquired by great labour of the mind (*ὅτι ἔστι πᾶν τὸ πρᾶγμα οἷόν τε καὶ δι' ὅσων πραγμάτων καὶ ὅσον πόνον ἔχει*, *ibid.*). Such discourse, in fact, acts as a spur to the noble mind and incites it to learn how to walk alone without a guide. The true votary is led on to mould his *life* in accord with philosophy in all the affairs of business, and to order his daily conduct in the way which will make him quick to learn, slow to forget, able to reason soberly for himself (340 d). But those who are not true 'lovers of wisdom' at heart, but cherish a mere skin-deep interest in 'points of view' (*δόξαι*, 340 d), will soon grow weary of the prolonged course of study and the daily discipline of the 'affections and lusts,' and give up the quest. Some of them will try to persuade themselves that they are already masters and need pursue no further (*ὡς ἱκανῶς*

¹ I.e., whether what he had learned from Plato on his former visit had kindled a genuine desire to know more. Cf. 338 d ff. *φιλοσοφία* throughout the letter means virtually the theory and practice of the Academy.

ἀκκοότες εἰσὶν τὸ ὅλον, καὶ οὐδὲν ἐτι δέονται τινων πραγμάτων, 341 a). The proposed test, applied to those who have not the diligence to follow the path to its goal, brings out the difference between the man who blames his teacher for his failure to make progress and him who rightly lays the blame on his own inability to *live* as a philosopher must (πάντα τὰ πρόσφορα ἐπιτηδεύειν τῷ πράγματι, *ibid.*). It was in this spirit that I spoke as I did then to Dionysius." Hereupon, according to Ritter, follows immediately (345 c ff.) the account of the growing unfriendliness of Dionysius to Dion, on which Plato remarks that it enabled him "to see accurately how much Dionysius cared about philosophy, and gave him the right to feel indignant," and the narrative then runs straight on with an account of Plato's desire to be allowed to go home and the reluctance of Dionysius to part with him.

Now is it not clear that, as thus restored (?), the continuity of the letter is violated? The elaborate account of the kind of "test" (πείρα) appropriate to the case of a prince has led nowhither. We are neither told whether it was actually applied, nor, if it was, how it resulted. We have been led to expect information as to whether Dionysius confessed his inability to live up to the standard demanded of the philosopher, or tried to lay the blame for his failure on Plato, or finally posed as having already learned all that Plato had to teach, and being therefore free from the obligation to live any longer *subdisciplina*. This information we get in the letter as it stands, but not in the mutilated form which Ritter regards as original. Indeed, in Ritter's version, Plato is made to ascribe his discovery of the uselessness of further attempts to make a "philosopher" out of Dionysius not to the application of the carefully described πείρα, but solely to the prince's unworthy treatment of Dion.

This incoherence is so glaring that I venture to say that if the letter had come down to us without the whole passage which Ritter excises, critics would have declared with some reason that there must be a considerable lacuna in the text at the very point where Ritter begins his excision. Some account of the application of the πείρα to Dionysius would have been rightly felt to be indispensable. But when once so much as this is granted, we have to allow that the coherency of the whole "interpolation" with itself, and particularly the intimate connexion of its beginning and end with what immediately precedes and follows, forbid our resorting to any theory of a minor "interpolation" covering only the two pages 342-343. There is no reasonable way of dealing with the text by excision short of cutting out the whole of what

Ritter regards as "interpolated," and the whole, as we have just seen, cannot be removed without making the letter hopelessly incoherent. Either then the whole letter is spurious, a view which Ritter himself in my opinion properly rejects, or the whole is genuine, and Plato must take the blame for any unintelligibility there may be in the pages which deal with ἐπιστήμη and the reasons which make written books unsatisfactory as instruments for imparting it. This brings me to my second point, the careful consideration of the incriminated passage, and the exposition of its real meaning. I proceed then to offer a translation of the whole passage 341 b-345 c, with such interspersed comments, marked in the text by square brackets, as seem requisite. I will only premise that the reader remembers that the studies which, according to Plato, are particularly effective in producing the intellectual and moral elevation requisite for philosophy are mathematics and dialectic, the former, as commonly taught, being a propædæutic for the latter, and that it was precisely by a course of geometry that, according to ancient tradition, the training of Dionysius for the work of kingship was begun. Consequently we shall not be surprised to find that the account of the difficulties attending the attainment and communication of ἐπιστήμη is specially concerned with the philosophy of the mathematical sciences, though allusion is also made to ethical inquiries. If we bear this in mind, we shall discover that many of the alleged obscurities of the passage vanish of themselves.

II. *Interpretation.* "To be sure, I did not give a *complete* exposition, nor did Dionysius ask for one. He professed, in fact, to know and be adequately possessed of many, and those the most important, matters for himself by reason of what he had imperfectly heard from others. I hear that since then he has even written a work about what he heard at the time, in the form of a Hand-book to Philosophy (τέχνη) by himself, which differs utterly from what he then heard. About this I have no certain knowledge, but I know for certain that others have composed writings on the same topics, though who they are is more than they know themselves.¹ Yet I can state this much of all writers in the past or future who profess knowledge of the matters to which I devote myself, whether on the ground of having learned them from me or

¹ We cannot expect to know who the persons thus referred to are, except that they seem to be pupils with whose performances Plato was not wholly satisfied. Readers with a sense of humour would naturally like to think of Aristotle, but to identify the culprits at all is to be wise above what is written.

others, or as a discovery of their own. It is, in my opinion, impossible that they should understand one whit of the business. At least, there is not, and God forbid there should ever be, any written work of my own about it. [Plato in the main kept his word. We learn a little about the topics described here as *περὶ ὧν σπουδάζω* from the *Timaeus*, *Philebus* and *Laws*, but for the most part we are dependent on the reports of Aristotle.] For the matter is not 'exponible' in speech, like other branches of study. It is only after long fellowship in the business itself [*sc.* the pursuit of the philosophic life; the reiterated *τὸ πρᾶγμα* seems to mean something like 'the grand concern'] and in life together that, so to say, a light is kindled in one soul by the fire bursting forth from the other,¹ and, once kindled, thereafter sustains itself. [The meaning is that there are *μαθήματα*—the rules of composition as taught by Isocrates would be a case in point, and so would 'geometry and the kindred *τέχναι*,' as taught in our school-books with avoidance of all reference to the philosophical problems they suggest—which can be learned from a manual or *τέχνη*. Philosophy, being a 'way of life,' or 'habit of mind,' cannot be compressed into any such spoken or written summary of rules and results. It is only by living daily the life the Master lives, and by lying long open to the influence of his personality that, sooner or later, the soul of the pupil 'takes fire'. After that moment the sacred fire, which required at first to be fed by the example and precept of another, 'feeds' itself. The philosopher is thus not a 'crammer' but a trainer of men. *Cf.* the well-known views on the relation between teacher and taught, and the necessity for intimate first-hand intercourse between the riper and less ripe mind in *Rep.*, 518 b; *Phaedrus*, 274-276; *Theaetetus*, 149-151.]

"And yet I am sure of one thing, that if these matters were to be expressed in spoken or written discourse, it had been best done by myself, and further that I should feel more distress than another if the written exposition were a bad one. Had I thought them 'exponible' and adequately communicable in writing for the public, to what nobler work could I have given my life than that of writing what would be so serviceable to mankind, and of throwing the light of

¹ 341 c, *ἐξαίφνης, οἷον ἀπὸ πυρὸς πηδύσαντος ἐξαφθὲν φῶς, ἐν τῇ ψυχῇ γενόμενον αὐτὸ εἰναι ἤδη τρέφει*. The context, I think, shows that the *ψυχῇ* is that of the disciple which catches fire from the soul of the Master. One might indeed suppose that only one soul is referred to, and the meaning is that in *either soul* a smouldering fire suddenly bursts into flame, but I feel that this would be Neoplatonic rather than Platonic.

day on Nature for all men? [This sounds arrogant, but the arrogance is only in the sound. It is Plato's apology for giving the public of his time only 'discourses of Socrates,' and not an exposition of his own philosophy. If the Platonic philosophy could have been imparted to the world at large in a book, Plato was obviously neglecting his duty in not writing that book.] But I do not regard the so-called dialectical exposition of these matters¹ as good for any but the few who are capable of discovering them for themselves with the help of a little guidance. As for the rest of mankind, it would fill some of them out of all measure with a mistaken contempt and others with a vain and empty conceit of the sublimity of what they had learned." [I.e. some would not understand a written work on φύσις and would despise it as jargon, others, who mistakenly thought they understood it all, would plume themselves on their fancied intellectual penetration and forget that as yet they were only beginners and not proficient. Readers of Herbert Spencer among ourselves illustrate the point. Some of them are led to despise all philosophy as high-sounding jargon; others give themselves airs of superiority on the strength of the supposed intellectual power shown in professing to understand what "the general" are baffled by.]

[The upshot so far, then, is that the result of the *πεῖρα* was unsatisfactory. Dionysius, by his boasts of his knowledge, had shown himself to belong to the class of men whose philosophy is only skin-deep, inasmuch as he insisted that he had already reached a point at which he had nothing more to learn from Plato, and had even, if reports could be trusted, attempted to expound a philosophy of his own in a book.]

"It has occurred to me to say something more at length about these matters [*αὐτῶν* I take to be neuter as in the preceding *τὴν ἐπιχείρησιν περὶ αὐτῶν λεγομένην* and the following *λεχθέντων αὐτῶν*, though it might conceivably be masculine, referring to the persons just spoken of, for whom the study of philosophy is not desirable]. There is a truth adverse to the pretensions of those who would commit any such matter to writing, a truth which I have often uttered before, but must, as it seems, repeat again now."

[Now follows Mr. Richards' 'rignmarole,' about which I would make one preliminary remark. In the author of the *Laus* and *Philebus*, who, as he says himself in the *Theaetetus*,

¹ For the meaning here given to *τὴν ἐπιχείρησιν περὶ αὐτῶν λεγομένην* compare *Sophistes*, 239 c; *Laus*, 631 a, 722 d; Aristotle, *Topics*, 111 b, 16, 139 b, 10, and the regular technical sense of *ἐπιχείρημα* in the *Topics*. The full expression is *ἐπιχείρησις τοῦ λόγου*, as e.g., in *Ep.* VIII., 352 e.

172 d, regarded it as a mark of the 'liberal' character of philosophical discourses that the speaker is not controlled by a brief, or hampered by a time-limit, but can digress at any moment and to any length he regards as desirable, the passage must not be condemned simply because it is a digression, and to our taste a lengthy one, but only if its contents can be proved unworthy of their alleged author.]

"For everything that is [ἐκάστω τῶν ὄντων, i.e. for every concept which is an object of scientific contemplation] there are three intermediaries by which the knowledge of it must be imparted [the notion of 'imparting' is suggested by the *παρα* in *παραγίγνεσθαι*], and we may reckon the knowledge itself as a fourth thing, the object of it, which is the Knowable or Real Being, being counted as fifth; thus, (1) a name; (2) a discourse [*λόγος*, the example below will show that he is thinking more particularly of the *λόγος τῆς οὐσίας* or definition, the 'discourse' which tells you what the thing called by the name is]; (3) an image (*εἰδωλον*); (4) a knowledge. If you wish to understand what I am saying, you may take one example and conceive all the rest analogously. There is something which we call a circle. Its *name* is the very word we have just uttered. Next comes its 'discourse' [or definition, *λόγος*], a complex of names and verbal forms [*ρήματα*].¹ E.g., the 'discourse' of the thing which has the names 'round,' 'circle' is 'that which has its boundary in every direction equidistant from its middle point'. Third is what we draw and rub out, fashion on the lathe and destroy again. These affections do not belong to the 'circle itself' with reference to which all these operations are performed, clearly because it is something different from what is thus constructed.² Fourth, there are knowledge and understanding (*νοῦς*) and true judgment (*δόξα ἀληθής*) about all this. These must again all be reckoned as one condition which inheres neither in sounds, nor in the shapes or colours of bodies, but in minds [*ψυχαῖς ἐόν.* I.e., knowledge and belief inhere neither in the visible diagrams and models, nor in the spoken words of discourse; they are states of *mind*]. Hence it is manifest that this condition is something different both from the real circle [*αὐτοῦ τοῦ κύκλου τῆς φύσεως*, where I may be pardoned for remarking that *κύκλου* depends on

¹ I have rendered *ρήματα* here 'verbal forms' on the authority of *Sophistes*, 262 b, where *βαδίζει, τρέχει, καθεύδει*, and *τᾶλλα ὅσα πράξεις σημαίνει* are said to be *ρήματα*, but it is, of course, possible that the sense is more general, and that we should translate 'predicative phrases,' so as to include adjectives used predicatively.

² Cf. *Rep.*, 510 b, e, for the point of the distinction between a mathematical diagram or model, and the concept which it is meant to illustrate.

φύσεως, not *vice versa*, αὐτὸς ὁ κύκλος, ὁ ἐν τῇ φύσει κύκλος, ἢ τοῦ κύκλου φύσις are all synonymous in Platonic language], and from the afore-mentioned three things. [That is, the 'circle itself,' which is the object of the geometer's knowledge, is neither a name, nor corporeal thing, nor a physical thing or 'state of mind'; it is strictly what the scholastics call a *universale ante rem*, like all the Platonic εἶδη.]

"But of all the rest understanding (νοῦς) approximates most closely to the fifth [real being, the object of scientific thought], in affinity and likeness; the others stand at a further remove. We must hold the same view of straight and curved figure, of colour, of the good, beautiful, and right, of every body artificially made or naturally generated, of fire and water and their likes [*sc.* not only of bodies but of the popularly recognised στοιχεῖα of bodies, which are, of course, not στοιχεῖα at all for Plato], of all organisms and all tempers of the soul, as well as with reference to all action and passion; in all these cases, unless one in some sort acquires the first four, he will never partake fully of the knowledge of the fifth."

[The application of all this to the problem of the communication of knowledge is obvious. To communicate knowledge about an object of thought, you have (1) to use a name for it, (2) to explain what the name means by stating its equivalence to a certain 'discourse' or 'definition,' (3) to illustrate your 'discourse' by actual appeal to diagrams or models,—or, we may add, to the memory-images of them, which like the diagrams and models themselves fall under the general head of εἶδωλα. It is only by these intermediaries that you succeed at last in producing in another a genuine knowledge about the purely conceptual objects of genuine scientific knowledge, and we are to see directly that every stage of the process is attended by grave sources of error.]

"Furthermore, all these processes, thanks to the imperfection of language (διὰ τὸ τῶν λόγων ἀσθενές), are used no less in showing what the object is *like* than in showing what it *is* (τὸ ποῖόν τι περὶ ἑκάστου—τὸ ὃν ἐκάστου). Hence no man of understanding will ever venture to put his concepts into language (εἰς αὐτὸ = εἰς τὸ τῶν λόγων ἀσθενές), least of all into language which cannot be altered, as is the case with writings."

[So far the sense is quite free from difficulty, and wholly Platonic. The point is that it is a hard and barely possible thing to communicate profound mathematical and 'dialectical' truth by a written text-book illustrated with diagrams. That Plato distrusted these last we know independently from *Phaedo*, 92 d; *Cratylus*, 436 d; *Rep.*, 510. And for

this very reason he requires in the passage of the *Republic* that 'dialectic' shall be devoid of the help of diagrams (511 b, αἰσθητῶ παντάπασιν οὐδενὶ προσχρώμενος), much as the philosophical mathematicians of our own day demand a "geometry without diagrams".¹ This throws light upon the one apparent obscurity of the present passage. What, it may be said, has the alleged ultimate source of all difficulties, the inadequacy of language, τὸ τῶν λόγων ἀσθενές, to do with the danger of reliance on diagrams? That there is such a danger we know very well. A diagram is always imperfect, and often suggestive of error, and moreover a diagram can never exhibit a problem or construction in its generality. Thus, to take the simplest examples, Euclid never proves a point which is vital in his very first proposition, viz., that the two circles described from the end-points of his given straight line have a point of intersection not lying on the given line.

¹ It may be thought that I am here forgetting that it is not 'geometry and the kindred τέχναι,' but dialectic which the *Republic* forbids to employ diagrams. But the fact is that the "philosophy of mathematics," and the treatment of mathematical problems in the light of such a philosophy form a most important part of what Plato calls 'dialectic'. It is not in its subject-matter, but in its method and its success in reaching certain first principles, as contrasted with positions merely assumed for the purpose of argument, that dialectic is discriminated from the other μαθήματα, and it is the business of dialectic to justify by deduction from ἀννπόθετοι ἀρχαὶ the unproved assumptions which the ordinary mathematician uses simply as—to employ a technical term which the evidence of Proclus proves to be as old as the first generation of the Academy—αἰρήματα, assumptions which are not self-evident, but merely demanded for the sake of argument. Cf. Proclus, *Comment. in Euclid.* 188, 8, τὸ γὰρ αἴτημα κατ' ἐκείνον (sc. Aristotle) δεῖται ἀποδείξεως τινός; *ibid.*, 76, οὐκ ἔστι ταῦτ' ἀξίωμα καὶ αἴτημα . . . ὥς πού φησιν ὁ δαιμόνιος Ἀριστοτέλης, ἀλλ' ὅταν μὲν καὶ τῷ μαθάνοντι γνώριμον ἢ καὶ καθ' αὐτὸ πιστὸν τὸ παραλαμβάνομενον εἰς ἀρχῆς τάξιν . . . ἀξίωμα τὸ τοιοῦτόν ἐστιν . . . ὅταν δὲ αὐ καὶ ἀγνωστον ἢ τὸ λεγόμενον καὶ μὴ συγχωροῦντος τοῦ μαθάνοντος ὅμως λαμβάνηται, τῆνικαῦτα φησὶν, αἴτημα τοῦτο καλοῦμεν. The reference is to *Analytica Posteriora*, I., 76 b, 23-34.

To avoid misconception about the character of 'dialectic' it is worth while to note that the biological researches of Speusippus known as the *ὁμοία* or *Homologies* appear, as has well been brought out by P. Lang (de *Speusippi Academici Scriptis*, 1911) to have been intended in the first instance as a contribution to 'dialectic' (because they subserve the process of classification), and again that the theory of surd magnitudes in Euclid, X., in the same way aims at making a classification of types of surds (see *op. cit.*, Prop. 111, Corollary, which was very probably, as Heiberg suggests, the original conclusion of the book). The work is therefore primarily a piece of dialectic as described in the *Philebus*, as is only natural when we remember that it completes and embodies the researches of the Academicians Theaetetus, Socrates and Eudoxus (see Plato, *Theaetetus*, 147 d, [Aristotle] *de Lineis Insecabilibus*, 968 b 16 ff., Proclus, *op. cit.*, 66-68 on these mathematical pioneers. The passage of the *Theaetetus* itself represents the study of surds as from the first a problem in classification¹.

He is apparently contented to take this for granted on the strength of the diagram, though it can be, and ought to be, proved. In I., 2, his figure only illustrates one of several possible "cases" of the general problem, and so again in I., 47, the proposition would be equally true of squares constructed on the inner sides of the straight lines which compose the triangle, but the diagram does not represent this case. But what connexion have these considerations with the "inadequacy of discourses"? Simply, as I suppose this, it is the inadequacy of *ψιλοί λόγοι* to render mathematical reasoning generally intelligible which drives the mathematician to eke out his "discourse" by appeals to always imperfect and often misleading diagrams and models. The ordinary man will not take in what is meant by the statement, nor be able to fix his attention on the steps of the reasoning, without some such helps for his imagination. So, again, the propositions of Euclid V. hold good of all ratios between magnitudes of any kind, those of Euclid X. for any surd magnitudes of the types discussed, but as aids to the imagination the writer regularly employs two special kinds of magnitudes, lengths and areas. And in X. we see that this habit has reacted on his thought and language; he constantly speaks of surd "lines" and "rectangles" as though the propositions he is enunciating held exclusively of lines and areas.¹ The same considerations account for the allusion to the distinction between the *ὄν* and the *ποιόν τι* and the stress which our passage goes on to lay on the confusion between them as a source of fallacy. The way in which the distinction appears in geometry is well illustrated by some remarks made by Proclus in connexion with the classification of Euclid's propositions as "theorems" and "problems". The distinction between the two, he tells

¹ This may be illustrated by the distinction kept up throughout the book between the surd expressions called respectively *μέση* and *μέσον*. The *μέση* (the full expression is *μέση εὐθεία*) is defined at X., 21, as the straight line whose square is equal to the rectangle under two straight lines which are only *δυνάμει σύμμετροι*. Thus, e.g. $\sqrt{a}\sqrt{b}$ would be a *μέση* since (if a and b are integers, and b not a square number), a and \sqrt{b} are *δυνάμει μόνον σύμμετροι*. The *μέσον* (full expression *μέσον χωρίον*) is the rectangle under two *μέσαι* which are *σύμμετροι* whether *μήκει* or only *δυνάμει* (X., 24). Hence $\sqrt{ab}\sqrt{cd}$ satisfies the definition of a *μέση* if you regard it as the square root of $ab\sqrt{cd}$; it satisfies that of a *μέσον* if you regard it as the product of $\sqrt{a}\sqrt{c}$ and $\sqrt{b}\sqrt{d}$ (premising, as before, that c and d are not square numbers). The apparently hard and fast distinction between the type *μέση* and the type *μέσον* really depends only on the arbitrary selection of a straight line or a rectangle to symbolise a surd magnitude. The irrelevancy of the *εἰδωλον* is here the source of a confusion of thought.

us, had not originally been universally admitted in the Academy. Speusippus had regarded all geometry as composed exclusively of "theorems," Menaechmus had held that all propositions of geometry are "problems" (*Comment. in Euclid.* 77-78).

Thus the dispute, since Speusippus had taken sides in it, may not unreasonably be held to go back to the life-time of Plato himself, as Speusippus only survived his uncle by a few years, and was already an elderly man when he became head of the Academy.

Proclus goes on to trace the effect of it upon the views of later thinkers, and tells us that "Posidonius and his school defined the one as a proposition in respect of which it is asked whether something exists or not, the other as a proposition in which it is asked 'what is it?' or 'of what sort is it?'" (*op. cit.*, p. 80), a view which exactly corresponds to the modern doctrine that "problems" are existence-theorems.¹ It is in accord with this view that when Proclus comes to comment on Euclid's first "theorem," Prop. I., 4, he justifies the arrangement by which the proposition is preceded by the familiar "problems" I., 1-3, in the following way. "How was Euclid to instruct us about the *συμβεβηκότα καθ' αὐτό* of the triangles, and the equality of their angles and sides without first constructing the triangles and providing for their genesis? Or how could he have assumed sides equal to sides and straight lines equal to other straight lines if he had not already considered this by way of problems and achieved the finding of the equal straight lines? For suppose him to say, before constructing them (*i.e.* before showing how a triangle or a straight line equal to a given straight line can be constructed), 'If two triangles have the following property (*σύμπτωμα*), they will also in all cases have such-and-such a second property'; would it not be easy for any one to retort on him, 'But do we know whether a triangle can be constructed at all?' Or suppose him to go on, 'If the two triangles have two sides of the one equal to two sides of the other'—might not one raise the question, 'But is it possible that there should be two equal straight lines?' . . . It is to

¹ Friedlein's text makes Proclus say that it was the *problem* which Posidonius regarded as investigating "what the thing is" (*op. cit.*, p. 80, l. 22, τὸ δὲ πρόβλημα πρότασιν ἐν ᾗ ζητεῖται τί ἐστὶν ἢ ποῖόν τι). As this contradicts not only Proclus's previous statement that the doctrine of Posidonius was derived from "Zenodotus who belonged to the succession of Enopides" and taught that "a *theorem* asks what is the *σύμπτωμα* predicated of the matter under consideration," but also his further account of the views of Posidonius himself, I can only suppose the word *πρόβλημα* to be a mistaken gloss on τὸ δέ.

anticipate such objections that the author of the *Elements* has furnished the construction of triangles (*sc.* in I., 1)—for his procedure is equally applicable to all three kinds of triangle—and the genesis of equal straight lines. This last he has achieved in a double form. He both constructs such a line in general (I., 2), and constructs it by cutting off a segment from an unequal line (I., 3). Thus he reasonably makes the theorem follow on these constructions" (*op. cit.*, 234-235). In the light of Proclus's account of the antiquity of the question about the distinction between theorems and problems, it seems natural to me to suppose that it is to this that the language of our passage alludes. The sense then will be simply that the effects of the inadequacy of language are felt in problems and theorems alike.]

"I must, however, repeat the lesson I am now giving. Every one of the circles which are drawn or fashioned on the lathe by actual manual operation (*ἐν ταῖς πράξεσι*) is full of the opposite of the Fifth, I mean, it is everywhere in touch with the Straight. But 'the circle itself,' so we say, has neither more nor less in it of the nature of its opposite. [*I.e.* no actually described physical disc is ever absolutely circular. At any point you please you can make it coincide throughout a finite distance with a physical 'straight' line. So, one might also say, in the diagrams of our Euclids, the so-called circle and tangent can always be seen by any one to coincide throughout a perceptible distance. But 'the circle itself,' the 'mathematical' circle of which Euclid is speaking only coincides with the tangent at a 'mathematical' point.] So we say that none of them [*viz.*, the 'physical' figures referred to] has a fixed name. There is no reason why those we actually call round should not have been called straight; yes, and the straight ones round. The names would be just as fixed if we interchanged them. [*E.g.* to revert to the example I have just given, we may imagine a diagram in which the so-called tangent coincides throughout a visible interval with the so-called circle. Then, the so-called tangent is not *really* straight, nor the so-called circular arc *really* circular. So if you were to cut out this bit of the diagram and consider it by itself, it would not matter which of the visible lines you called the arc, and which the tangent.]¹

"Further the same must be said of the 'discourse,' since it is made up of names and verbal forms (*ῥήματα*). There is

¹ Or is it simply meant that we might—since names are a matter of "convention"—have used the word "straight" to mean what we actually call "curved"? This is true, but I do not see how it can be regarded as giving rise to any difficulty.

no sufficiently fixed fixity in it. [μηδὲν ἰκανῶς βεβαίως εἶναι βέβαιον. This is an obvious consequence. If a mathematical term gives rise to ambiguity owing to the possibility of its being taken as standing for something we can see and draw, *a fortiori* the same must be said of a definition or other proposition containing many terms.] And there is no end to be said (μυρίος δὲ λόγος) in the same way (αὖ) of the ambiguity (ἀσαφές) of each of the four [*sc.* ὀνόματα, λόγοι, εἰδῶλα, δόξαι]. But the principal point is that we mentioned just now. The ὄν and the ποῖόν τι are two different things. But when the soul is trying to know the *What* (τί), not the ποῖόν τι, each of the four presents it, in word or in fact [λόγῳ τε καὶ κατ' ἔργα, where κατ' ἔργα refers to the construction of the sensible diagram or model] with that after which it is not seeking,¹ and thus renders what is being stated and demonstrated open to refutation by the senses, and so fills everyone, speaking roughly, with confusion and perplexity. Accordingly in matters as to which, from our evil upbringing, we have not so much as learned the habit of seeking for truth, but are satisfied by any image of it which presents itself, we do not make one another ridiculous in the process of question and answer, by our ability to tear in pieces and refute the four; but in cases in which we are obliged to answer about the fifth and point it out, any one who has the will and the ability is equal to overthrowing <his antagonist> and can make the exponent <of a truth> in speech or writing or answers to questions [*i.e.*, dialectical inquiry] appear to most of his hearers to know nothing about the

¹ These are perhaps the most difficult words in the whole of the passage. What are we to understand by this substitution of the irrelevant question for the relevant? I think we may explain the matter as follows. The mind is said to be inquiring into the "what" of something, and the reference to a diagram or model as the source of the confusion, shows that the something is a mathematical line or figure of some kind. Its τί or "what" will therefore be its defining characteristic, and to "inquire into" this τί will presumably mean to "construct" the curve or figure or what not, to establish its "existence". You will be committing the inconsequence spoken of if you attempt to demonstrate the συμπτώματα of the line, curve, figure, before showing how to construct it, *i.e.*, before proving that it is one of the objects contained in the geometer's universe of discourse. Thus Proclus's already-quoted observations about the reason for placing Euclid I., 4, after I., 1-3, amount to urging that Euclid would have committed the fault in question if he had investigated certain συμπτώματα of triangles in which two sides and the included angle of the one are equal to two sides and the included angle of the other, without having proved by implication (as Proclus assumes he has done), that a pair of such triangles can exist.

A more modern illustration would be attempting to establish some theorem about the tangent to a given curve at any point before you have ascertained that the curve has a tangent at any point.

matter on which he is undertaking to write or speak, since the audience often forget that it is not the mind (*ψυχή*) of the writer or speaker which is being refuted, but only one or other of the four, thanks to its ill constitution.¹ It is the process through them all, the transition forwards and backwards in the case of each, that at last hardly gives birth to knowledge of the well-constituted in a well-constituted <mind>. But if <the mind's> constitution be ill (and this is most men's case both with respect to acquiring knowledge and with respect to acquiring what is called character), and in part also corrupted, Lynceus himself could not make such men see."

[We may, I think, illustrate the whole passage in the following way: Let us suppose a mathematician to be dealing with a branch of his study which owes its fundamental principles to the researches of the Academy, the Geometry of the Conic Sections. Let us further suppose that he is aiming at proving the existence-theorem that there are three such curves and no more; a task which, of course, involves the establishment of a correct definition of each of the three by reference to some exclusive property—an answer to the question *τι ἐστὶ*. It is at once obvious that any ambiguity of language may introduce great difficulties into the communication of his investigations on such points to others. But the same thing is equally true of the diagrams by which he attempts to remedy the imperfections of language, and make his meaning definite for his hearers. Thus, for example, if we formed our notions of the ellipse from the diagrams of the text-books, we should probably be struck by the inequality of the two

¹ *I.e.* the man who is attempting to express a true proposition may employ ill-selected terms, or a badly expressed or otherwise imperfect definition, or may attempt to illustrate his meaning by a diagram which does not represent the relations with which he is dealing adequately. You may then make it appear that he is uttering a paradox or that what he says is at variance with what can be seen in the diagram. But you have not in this way proved that what he meant to assert is false. Thus, for example, Aristotle's "refutations" of the Platonic views about the *εἰδυτικοὶ ἀριθμοὶ* turn in effect on denying that a surd expression such as $\sqrt{2}$ is a number. ("All number is composed of ones," etc.) This, however, is no criticism of Plato's meaning, but only of his terminology. So, again, it is no disproof of the existence of "transfinite" numbers to say that the arithmetic of "transfinites" contradicts the axiom that "the whole is greater than the part". The contradiction merely shows that the axiom only holds good of collections with a finite number of terms, and is, therefore, as it stands, badly expressed. Or, finally, you do not refute a proof that a given curve has no tangent at a given point (say the "origin") by drawing a diagram in which it looks as if there were a tangent at that point. You only show that the diagram does not represent what it stands for correctly.

axes of the curve, which the diagrams usually make prominent, and we might be led to think this inequality a universal characteristic of ellipses. This would lead to entire misconception of the relation of the ellipse to the circle, since we should fail to see that the circle is only one special case of an ellipse, in which the eccentricity of the curve is $= 0$, a mistake which was actually committed by Herbert Spencer when he contrasted circular orbits as "homogeneous" with elliptic orbits as "heterogeneous". Or, again, the teacher might wish to prefix to his treatment of the separate 'conics' a general account of the properties of the 'general conic'. For the benefit of his readers or hearers, he would probably illustrate his propositions by diagrams. But in any one diagram the figure will not be a 'general conic,' but definitely either parabolic, elliptical, or hyperbolic, and this may lead the beginner to confuse the properties of conics as such with those of the special conic figured in the diagram. Or, yet again, and this illustrates the remarks about the ease with which a smart *ἀντιλογικὸς* can make the mathematician look ridiculous, the lines which in a figure represent the asymptotes to an hyperbola can be seen to be such as would soon meet the line which stands for the curve, if both were produced, and the side and diagonal of the "square," measured by our rough appliances, will seem to have a common measure. Hence an *ἀντιλογικὸς* who insists on regarding the figure as the actual object of which a proposition is enunciated can readily make it seem that the geometer is uttering paradoxes which an appeal to the senses will explode. It is *à propos* to remember that the subtle arguments of Zeno were for centuries supposed to be idle though ingenious sophisms which might be set aside by such an appeal, though in fact they go down to the roots of mathematical philosophy. Thus we can understand what the writer means when he says that the whole series of intermediaries by which knowledge is imparted, name, definition, diagram or model, belief as to the teacher's meaning, is attended at every stage by possibility of misapprehension, and that it is only by a repeated dwelling on each of the four and comparison of it with the rest (*e.g.* repeated transition from written text to diagram, and back again from diagram to text), that the truth which the teacher is struggling to express at last dawns on his pupil's mind. For this reason alone, it would follow that, as has been already maintained, long personal association in the pursuit of truth is necessary if one philosopher-mathematician is to train up another. The same difficulty would meet us, as the writer says, in the attempt to impart knowledge of any kind but for

the fact that in our daily life we are commonly content with some thing far short of the ideal. We think it enough that those to whom we communicate our ideas should form a mere rough-and-ready approximation to our meaning. This is *e.g.* all that is commonly arrived at when a man makes a speech on a social or political topic. He does not expect his audience to take in all that he means, or to frame very precise notions of the "liberty," "order," "progress," and so forth of which he speaks. He is satisfied if they catch his meaning "there or thereabouts". But it is the great merit of the μαθήματα as a mental discipline that a "there or thereabouts" standard of comprehension is not tolerated in "geometry and the kindred arts".

So much for the sense of the passage. A word on the reference to Lynceus the sharp-sighted with which it ends. Mr. Richards finds this nonsensical, and asks whether Lynceus was supposed to be able to infect others with his gift of vision. I think this a serious misunderstanding of a phrase which in itself is simple enough. Every one knows that if *e.g.* you take a country walk with a keen-sighted friend, he is likely to call your attention to all sorts of minute or distant objects which you can see well enough for yourself after your attention has been directed to them, but would otherwise have passed by unnoticed. It is in this sense that Lynceus is spoken of as able to make other men see things. And it is in this same ability to call a pupil's attention to what he would otherwise have overlooked that a good teacher may properly enough be compared with a keen-sighted companion whose range of vision is longer than one's own.]

"In a word, if there is no affinity¹ between a man's mind

¹ For the thought that Philosophy demands kinship between the Reality known and the mind that knows it, see *Republic*, 490 b, οὐδ' ἀπολήγει τοῦ ἔρωτος, πρὶν αὐτοῦ ὃ ἔστιν ἐκάστου τῆς φύσεως ἀφασθαι ὃ προσήκει ψυχῆς ἐφάπτεσθαι τοῦ τοιούτου—προσῆκει δὲ συγγενεῖ κ.τ.λ. As the *Republic* passage shows that the thought is closely coloured by the imagery of the *ἱερὸς γάμος*, the allusion in *συγγενής* may not impossibly be to the Attic Law of the heiress, by which the hand of the orphan ἐπίκληρος fell of right to the next-of-kin. In any case, the meaning is that mere quickness in learning and good memory will never make a philosopher. A special elevation of soul and a peculiar gift of insight is indispensable. Historically we can trace back the thought that the highest intelligence is *akin* in a special way to the worthiest objects of knowledge to the Orphic belief that while the body to which a soul is temporarily assigned consists of materials drawn from its physical surroundings, the soul itself, being a divinity, comes from "heaven". Cf. Xenophon, *Cyropaedia*, viii., 7, 20 (in the course of an argument for immortality manifestly drawn for the most part from the *Phaedo*), διαλυομένου δὲ ἀνθρώπου δὴλὰ ἔστιν ἕκαστα ἀπὸντα πρὸς τὸ ὁμόφυλον πλὴν τῆς ψυχῆς (earth to earth, etc.), αὐτῇ δὲ μὴν οὔτε παροῦσα οὔτε ἀπώτιστα ὁρᾶται, where the suggestion plainly is that the soul also departs at death, πρὸς τὸ

and our study (τὸ πρᾶγμα) mere quick receptivity or good memory will never create such an affinity [with οὐκ ἂν ποιήσειεν we have clearly to understand συγγενῇ, so that the construction is τὸν μὴ συγγενῇ οὔτε εὐμάθεια οὔτε μνήμη ποιήσειεν ἂν συγγενῇ]. For it absolutely refuses to make its appearance except in a kindred soul. Hence neither those who have no natural attachment and affinity to righteousness and whatsoever else is fair, though they may be quick to learn and steadfast to retain other knowledge of various kinds, nor yet those who have this natural affinity but are slow to learn and forgetful,—none of these, I say, will ever fully master the truth about virtue and vice.¹ (< I say 'virtue and vice' > because both must be learned together, and similarly truth and falsehood about Real Being as a whole have to be learned together, and this, as I said at first, demands much time and practice (τριβή)). It is only in consequence of a reciprocal friction of them all, names, discourses, visual and other perceptions, with one another and the testing of them by kindly examination and question and answer practised in no spirit of vain-glory (ἄνευ φθόνων), that the light of sound judgment (φρόνησις) and understanding (νοῦς) flashes out on the various problems with all the intensity permitted to human nature.²

δόμοφύλον, to its cognate gods; Aristophanes, *Clouds*, 229, εἰ μὴ κρεμᾶσας τὸ νόημα καὶ τὴν φροντίδα λεπτήν καταμείξας ἐς τὸν ὁμοῖον ἀέρα (where the allusion is to the theory of Diogenes of Apollonia—also mentioned in the *Phædo* as one which had interested Socrates,—that air is, as we should now say, the vehicle of intelligence); cf. also the lines of the Orphic plate from Petelia, εἰπεῖν· Τῆς παῖς εἰμι καὶ Οὐρανοῦ ἀστερόεντος, αὐτὰρ ἐμοὶ γένος οὐράνιον κ.τ.λ., and those found at Thurii, καὶ γὰρ ἐγὼν ὑμῶν γένος ἄλκιον εὐχομαι εἶναι κ.τ.λ. The humorous parallel of Plato's *Timæus* between the shape of the human head and the shape of the οὐρανός is a fanciful expression of the same central idea.

¹ *εὐμαθία* and *μνήμη* are similarly demanded as qualifications of the philosopher at *Republic*, 486 c-d, but there, as here, they form only a very small part of Plato's requirements. He also demands a *passion* for 'truth' or 'reality,' indifference to the satisfactions of appetite, "high-mindedness" and freedom from all pettiness of soul (*ἀνελευθερία*) and from all unworthy fear, and various other qualities which are here aptly summed up in the requirement of a "natural affinity" to the object of philosophical study.

² The metaphor of the sudden breaking out of the flame forms, of course, a link with 341 c-d, but it is ingeniously prepared for by an almost untranslatable play on words. It has just been said that much *τριβή* 'practice' will be required for the acquisition of philosophy. The writer then echoes the word *τριβή* in the *τριβόμενα* of the next sentence, where he speaks of the process of repeated alternations of attention between the words and λόγοι of a demonstration and the diagrams to which illustrate it, as one of "friction". This leads naturally to the image of the insight which results from the process as a light kindled by "friction". This gradual preparation through an apparently scarcely conscious figurative use of a common word for a full-blown metaphor has always seemed

"Wherefore every worthy man (*πᾶς ἀνὴρ σπουδαῖος*) will beware with all caution of bringing worthy matters into the range of human rivalry and perplexity by writing of them. In one word, one must learn from what has been said that when one sees written compositions by an author, whether laws written by a legislator, or writings of any other kind soever, these were not the matters the writer deemed worthiest, if indeed he is himself a man of worth; such things [*sc.* the things the writer deemed *σπουδαιότατα*] are laid up the fairest place the man possesses.¹ If he indeed committed them to writing as things of greatest worth and moment, 'why then, thereafter,' not gods but men 'bereft him of his wits'.

"Well then, he who has followed this discursive tale will know full well that whether Dionysius, or any other man, greater or less, wrote down any of the highest and primary truths of Nature, he must have had no sound instruction nor understanding of anything of which he wrote, at least not according to my conviction. Else he would have had the same awe of these themes as I have, and not have exposed them to the eyes of discord and uncomeliness.² He could not have been impelled to write them as memoranda for his private use (there is no danger that one whose mind has once compassed the truth should forget it, for it is contained in the briefest words). It must have been done, if it were done at all, from an unseemly vanity, whether the purpose was to claim the knowledge as his own, or to prove his participation in an education of which he was unworthy if he was greedy of the reputation of having participated.

to me characteristically Platonic. The point of the remark that the philosopher has to learn *at once* τὸ ἀληθές and τὸ ψεῦδος is, of course, that in the use of dialectic it is precisely by seeing where unsatisfactory hypotheses are false that we are led on to a truer one.

¹ *κέῖται δὲ πον ἐν χώρα τῇ καλλίστῃ τῶν τούτων*, that is, *ἐν τῇ ψυχῇ*, or more precisely *ἐν τῷ νῶ*; the truths which are of most moment in the opinion of a good and wise man are written on the "fleshy tables of the heart," not on tablets of wax or sheets of parchment. He bears them about with him and does not need to store them in a library.

² *εἰς ἀναρμοστίαν καὶ ἀπρέπειαν ἐκβάλλειν*. If Dionysius had really any understanding of philosophic truth, he would have avoided casting it before swine. He would not have exposed it, by circulating his *σύγγραμμα*, to the disordered and lewd minds of his court circle. Or is it merely the symbols of language and diagram which are judged, for the reasons already given, too "ill-fitted together" and too "mean" to express high truths? I think the former interpretation right, since it is conceded that the writing of the *σύγγραμμα* would have been allowable if the principles of Platonism were so many and required such lengthy statement that a man might need a written record to assist him in remembering them. The offence was thus not so much the writing as the publication of it.

"Now if Dionysius was affected thus by our only interview (perhaps it might be so, though *how* it happened 'Goodness only knows,' to use the Theban phrase, for I went over the subject in the way I have described, and that once only, and on no second occasion¹), he who would learn how the effect fell out as it did, must ask himself why we did not go over matters a second and third time, and yet oftener. Does Dionysius after a single hearing fancy that he has knowledge, and has he really sufficient knowledge, whether from discoveries of his own or from previous instruction by others? Or does he think my exposition worthless (*φαῦλα τὰ λεχθέντα*)? Or, for this is the third possibility, does he think the subject beyond him and admit that he has not the ability to live in the practice of wisdom and virtue? If he thinks the exposition worthless, he will find himself in disagreement with numerous witnesses whose judgment in such matters is of much greater weight than that of a Dionysius.

¹ In this difficult sentence I would punctuate thus: *εἰ μὲν οὖν ἐκ τῆς μίας συνουσίας Διονυσίῳ τοῦτο γέγονεν, —τάχ' ἂν εἴη, γέγονεν δ' οὖν ὅπως ἔττω Ζεὺς,*" φησιν ὁ Θηβαῖος· διεξῆλθον μὲν γὰρ ὡς εἶπόν τε ἐγὼ καὶ ἅπασι μόνον, ὕστερον δὲ ὑπώποτε ἔτι—ἐννοεῖν δὴ δεῖ . . . τίνι ποτ' αἰτία τὸ δεύτερον καὶ τὸ τρίτον πλεονάκεις τε οὐ διεξήμεν. That is I take, *εἰ μὲν οὖν—γέγονεν* as a protasis to which *ἐννοεῖν δὴ δεῖ* κ.τ.λ. forms the apodosis. The general meaning is "I only spoke with him once; hence the question arises why we did not go over the ground again and again". The three possible explanations of Dionysius's conduct in not asking for a second interview, *viz.*, that he thought himself after the first conversation competent to carry on his studies by himself, that he thought what he had heard disappointing, that he felt unequal to the demands of philosophy on his intellect and character, correspond to the three possible results of the *πείρα* suitable to a prince enumerated on p. 340.

As for points of detail, I assume with some hesitation that *γέγονεν δ' οὖν ὅπως ἔττω Ζεὺς* stands for *ἔττω Ζεὺς ὅπως γέγονεν*, "we may leave it to Zeus to know *how* it happened," *i.e.* "only God can say how it came about". Hence I have removed Burnet's comma after *ὅπως*. In the apodosis I would also remove the comma after *τὸ τρίτον*, since Plato is insisting that there was only *one* interview, and the *οὐ* must therefore negative the whole clause *τὸ δεύτερον καὶ τὸ τρίτον πλεονάκεις τε*. The only point now left obscure is the meaning of the *τοῦτο* of 345 a 1. *What* is it that might be supposed to have happened, God knows best how, to Dionysius after his interview with Plato? Apparently the *τοῦτο* means the "compassing of the truth" referred to in the previous sentence (*εἰὰν ἅπασι τῇ ψυχῇ περιλάβῃ*), so that the whole sense is, "if Dionysius really understood that part of the subject which I put before him at our only interview,—perhaps he did, though God knows how he could,—why did he not seek further instruction?" Two explanations, *viz.*, that what, on the supposition, he already knew was enough to qualify him to philosophise for himself in future, or that he was disappointed in what Plato had to say, are then examined and dismissed, and the implied, though unexpressed conclusion is that the only remaining alternative, *viz.*, that he felt his unfitness for the vocation of a philosopher, must be the true one. (I should say that I owe this explanation of the reference of *τοῦτο* to a suggestion of Prof. Burnet.)

If he holds that he has discovered the truth or been instructed in it, and that it is at any rate worthy of a liberally-educated mind, how could he ever have been so ready to affront one who had been his master and guide in these studies, unless he is a very singular fellow? The nature of the affront I can explain from personal experience."

The concluding paragraphs of our passage from 344 a 1 on do not seem to me to require any particular explanation or elucidation. They merely restate for us the view which had long before been expressed in the *Phaedrus* of the one reasonable ground on which *written* works on φιλοσοφία may be defended, *viz.*, that they serve to refresh a man's fading memories of the actual converse in which two minds have followed up the trail of truth, and urge that that ground is not pleadable on behalf of the work ascribed to Dionysius. Either his character or his judgment is proved to be bad by his seeking no second interview with Plato, and his boasts of his own proficiency,—and Plato inclines strongly to the view that the defect is not merely one of judgment. I have therefore to confess that if my interpretation of the two pages against which Mr. Richards' strictures are specially directed is substantially accurate, I see nothing either in the matter or in the manner of the whole digression which interferes with the ascription of the letter as we have it to Plato. And I think I have already shown that (*a*) the whole passage as I have rendered it is too much of a unity for one-half of it to be excised without the excision of the remainder, and (*b*) that if the whole is excised the result is immediately a sensible gap in the continuity of the letter. Whence I conclude that for those of us who lack the face to condemn the whole letter on the flimsy grounds which have been urged against it, apart from the objection to this particular section, the only alternative is to recognise the whole as from the hand of Plato. We may feel that Plato's hand has lost something of its cunning; there are unnecessary repetitions in the narrative, and the grammatical construction is sometimes loose, though both charges may be made with equal truth against *e.g.* *Laws*, vii.-ix. But these are no remarkable faults in a man well over seventy, and most of us, even in our prime, do not carry out in correspondence, and should not employ even in a published pamphlet to which we had purposely given the form of a personal letter, the same strict rules of composition as in a formal treatise or essay.

I will add only one further remark, which seems to me of some weight. The seventh epistle, whether by Plato or not,

bears every mark of being a genuine document of the date at which it purports to have been written. We have only to compare the Greek of it with that of the *Axiochus*, a dialogue composed, as Immisch has convincingly shown, by a member of the Academy, at the time when Epicurus was just coming into notice at Athens as a philosopher (i.e. within half a century or less of Plato's death), to judge whether so long a work, so exactly in a style which was rapidly becoming a lost art as early as 300 B.C. is likely to be a successful forgery. If a contemporary of Crantor and Polemon, familiar with the works of Plato, could not attempt a "dialogue of Socrates" without betraying himself in well-nigh every sentence, is it likely that some other Academic, even as early as the writer of the *Axiochus*, could have composed a letter of such length in a Greek which is, to us at least, indistinguishable from that of the *Laws*? The *Epinomis*, indeed, has been quoted as an example of such imitation, but the argument is worthless until some better evidence than that of a *φασιν* in Laertius Diogenes has been produced against the Platonic authorship of the *Epinomis*. Moreover, even those who think the *Epinomis* an imitation at least account for its exact correspondence with the style of Plato by assigning it to an immediate intimate and personal companion of the master. If we are to ascribe the seventh letter to another than Plato, I do not see how we can avoid a similar view of its origin. It will have to be regarded as a manifesto in the name of the Academy, produced at the latest within a very short time after Plato's death. Indeed, I think, we may go further. Such a manifesto could hardly have been written after the direction of Sicilian affairs had been put into the hands of Timoleon in 344, and it is scarcely more likely to have been later than the horrible catastrophe which ended the tyranny of Dionysius in Locri (346). Thus we are driven to date the supposedly spurious letter before Plato's death, and to assume that, even if he did not actually write it, it was composed in his name and with his approval. It follows that if the philosophical digression which we have been examining is "rubbish," it was rubbish which imposed on Plato and was taken by him for an expression of his own theories. I, for one, cannot believe in such a theory. The only rational view of the matter, to my mind, is that a letter which purports to have been written by Plato shortly after the death of Dion in 353, cannot have been written later than 346, and is indistinguishable in style from Plato's latest work, really was written by Plato, and that its philosophical part is therefore very unlikely to be "rubbish" and very likely to be excellent sense.

IV.—THE ETHICAL SYSTEM OF RICHARD CUMBERLAND AND ITS PLACE IN THE HISTORY OF BRITISH ETHICS.

BY FRANK CHAPMAN SHARP.

I.

THE SYSTEM.

A CAREFUL study of the ethical system of Richard Cumberland in its relations to its predecessors and successors will show it to be one of the three or four most powerful influences in the history of British ethics. Such an examination will also bring to light certain of its elements whose very existence appears to be almost unknown to-day, but which were among the factors of most importance in determining the subsequent course of ethical thought. Some of Cumberland's most valuable teachings have with the lapse of time been so far lost to ethics that we of to-day may still profit by going to school to him. Whatever, then, may be the nature of our interest in the thought of the past, we may find it worth our while to examine with some care the system of this great, though now almost forgotten, moralist.

The fundamental problems of ethics which are treated by Cumberland may be formulated as follows: What modes of conduct are right? What is meant by the predicate *right*? Furthermore, since the standard of right is described wholly in terms of the good, two other problems present themselves: What elements of life are intrinsically good? What is meant by calling them good? Finally, if we are to obtain an adequate view of the system we must inquire what are the motives of the moral life.

Cumberland's answer to the first of our questions is well known. The sum of the moral law is "the endeavour, to the utmost of our power, of promoting the common good of the whole system of rational agents" (Introduct., sec. ix.; cf. *ibid.*, sec. xxiv., par. 1; ch. V., sec. ix., pars. 6 and 7; ch.

VIII., sec. xiii., par. 1).¹ Of this system the agent himself is an integral part. He is no more a zero than he is the whole. "The measure of good things every one is entitled to, and may rationally seek, is no otherwise to be determined and settled than by that proportion he bears to the system of all rational beings, or to the whole natural kingdom of God" (V., xlvii., 5; *cf.* I., xxxiv., 6; V., lvii., 2; IX., iii.). Of this great organism God is a member, and since he has desires whose satisfaction depends upon our action we have a duty to him as we have to our fellow-men. "It is not to be doubted but that in our actions, obedience and imitation of his care of the common good of mankind . . . ; in our words and thoughts and affections, honour, worship, and love are more agreeable to his beneficent nature and more acceptable to him than neglect or hatred or direct and wilful opposition. . . . Therefore, as we know by the help of our senses that it is more acceptable to any man to be loved and honoured than to be hated and despised, so it is evident to reason by a manifest correspondence that it is more grateful to the supreme rational, God, to be loved and honoured by the obedience of men than to be the object of hatred and contempt" (Introduct., x., 1). Benevolence to our fellows is not a corollary from piety to God, but a parallel duty. The one and the other spring from a common root, the spirit of disinterested service (Introduct., xv., 1; I., iv., 3). Indeed it is declared that in the development of the individual the love of man must precede that of God (V., xiii.), an echo, doubtless, of an excellent statement, commonly ignored in the discussion of this subject, which may be found in the First Epistle of St. John.

A duty to animals is excluded not merely by the words, "the good of rational agents," but also by an explicit statement (V., viii., 3). There seem to have been several reasons for this position. First animals are declared to be too alien in nature from man to arouse his active interest in their good (I., xiv., 1, 2; II., xviii., 1). In the second place, the order of claims upon our service is sometimes thought of as determined, not by the comparative amount of good achievable but by "the measure of the beneficence" of those served; and animals are apparently ranked very low indeed in this scale (*cf.* V., xlviii., 2; xlix., 1, 2, 3, with I., xiv., 1, 2, as above). The formula occasionally found (*e.g.*, I., ii.), "the common good of all beings, especially such as are rational," may be the sign of certain misgivings with regard to this position.

¹ All quotations are from the translation of John Maxwell, London, 1727.

Turning now to Cumberland's definition of right we shall find that for him the right means the rational. He offers, indeed, no formal definition of the term, but its meaning appears with perfect clearness in the course of the attempt to prove that "the greatest good of all is the right end for every rational being". Every demonstration, or attempted demonstration of this assertion is based, in the last resort, upon the assumption that the proper goal of human endeavour is discovered by determining what is the end or what are the ends prescribed to man by reason.

This appeal to reason is not a flight for refuge to innate ideas. "I have not been so happy," he writes, "as to learn the laws of nature in so short a way" (Introd., v.). By reason he means nothing other than the cognitive powers of the mind, whatever they may be, and by the frequently employed phrase "right reason," these same powers so used as to lead to truth (II., v.). That the adjectives true and false are applicable to moral judgments he so little thinks of doubting that, though he affirms it again and again, he can scarcely be said to give it serious discussion. The methods of attaining truth are numerous, each of which has its own place in the guidance of conduct. Among them is enumerated what is, of course, at the foundation of all else, the principle of contradiction (V., xii., 4; *cf.* also II., vi., vii.). In the moral world, also, since truth is everywhere the same, the fundamental dictate of reason will be, Avoid contradicting thyself in thy actions. "I judge it requisite to the natural perfection of the human will that it follow the most perfect reason, both in its calmer resolutions, which are simply called desires and aversions, and in those more vehement ones, which usually go under the name of passions. Hence we may perceive that actions contrary to these are imperfections and diseases of the mind, as lameness or paralytic and convulsive motions are symptoms of diseases of the body. Such are the assents given to contradictory propositions, because it is certain that one member of a contradiction must be false" (V., xii., 7, 8; *cf.* II., vi., 2).

What, then, is the connexion between avoiding contradictions and aiming at the greatest good of all? The answer starts from a certain position with regard to the attitude which the individual ought to take towards his own greatest attainable happiness, in so far as he may abstract from the effects of his action upon the welfare of others. In cases of conflict between this and any less good of his own, reason requires him to choose the first alternative. "I affirmed that the entire and chief happiness possible [of the agent] was

aimed at in them [*i.e.* the sanctions of the moral law], because all men naturally and necessarily desire, not any part only thereof, but the whole which seems possible to them, according to the will of the First Cause. And this desire is highly rational, and evidently more conducive to our perfection than the desire of any less good" (V., x., 1. See also V., xvi., 2, *sub fin.*; xxii., 5; IV., i.). The rationality of this comprehensive desire undoubtedly depends, for him, upon the principle that the choice of a less good in preference to a greater is the same sort of contradiction as the affirmation that the whole is equal to or less than a part (*cf.* *Intro.*, xi., 2). But since, in his opinion, every one will readily admit the obligation whatever its justification, Cumberland, who writes wholly with an eye to practice, does not think it necessary to spend much time in searching for its foundation.

The next step in the argument is the proof that reason requires us to prefer the greater good of another or others to the less good of self. Its briefest clear formulation is found in chapter V., section xix. Cumberland is arguing from the moral standards of man to those of God. "If any man rightly judge that the common good of all who act according to the rule of reason is a greater good than the good or happiness of one man (and this is no more than to judge the whole to be greater than its part), there is no doubt but that God thinks the same. And it will come to the same thing if it be affirmed that the happiness of all is greater than the like happiness of any smaller number. But that happiness is the greatest which is greater than any other assignable. Nor is it a different judgment that by which we affirm the greatest happiness of all rational beings is the greatest or chief end which any rational agent can pursue. . . . Therefore there is no room to doubt but that we shall here also have God's concurrence. For since he himself is rational, and it cannot be conceived how he can act rationally without proposing an end to himself, nor can there be a greater end than the aforesaid aggregate of all good things; we cannot but think he judges this to be the best end he can propose to himself."

This cool identification of the greatest, in the sense of the most extensive end, with the best, in the sense of the right end, will seem to many readers nothing better than a juggler's trick. But the ideas which lay beneath it and which gave it its significance to Cumberland will appear if we bring into clear view the presuppositions upon which the argument rests.

It must be remembered that the egoistic theory which our

author had in mind—like most of those before and since—was based upon the principle that a man ought to choose his own greater good in preference to a smaller one. The greatest attainable good for self is the best or right end. If then it could be shown that, in principle, a man owes an equal duty to his neighbour with himself, Cumberland's conclusion would follow. But this, in his opinion, can be done. The mind "is inconsistent with itself when it determines to act after one manner in relation to itself, and after another manner in relation to others that partake of the same nature" (I., vi., 4; cf. V., xiv., 2). When he says "inconsistent," he conceives himself to be saying "guilty of self-contradiction," for he treats these two terms as identical (see *e.g.*, V., xxi., 2). Hence the following is, for him, but another way of repeating the same statement: "As 'tis a perfection of the human mind to form like judgments, so it is to entertain like affections concerning like things. To have contrary judgments of like things implies a contradiction, and is a kind of madness, and, in speculation, is shunned as a disease of the mind. In practice it argues as great an imperfection, and is a direct contradiction, in cases perfectly alike to have different judgments and different volitions, according as myself or another is concerned" (V., xvi., 5).

The same conclusion is elsewhere reached by a somewhat different path. As against Hobbes he maintains that it is incompatible with the very conception of an objectively existing code of rights and duties to assert that any individual is justified in pursuing his own greatest good to the detriment of the good of the whole. If a right is "not something merely chimerical and fictitious but [is] to be considered as something real and existing without the imagination . . . it immediately follows that contradictory propositions concerning the right of any two to the same things or persons cannot be the dictates of right reason". But this subjective theory of rights, it is declared, is the very foundation of "Hobbes's scheme" (II., vi., 2). The reason is obvious. An egoistic theory must affirm the right of every one to everything he can lay his hands upon. But such a position is easily reduced to an absurdity. "If right reason instructs Titius that his greatest happiness, which he is to pursue as his ultimate end, consists in the enjoyment of a plenary property in the possessions, and an absolute dominion over the persons of Seius and Sempronius, and of all others, right reason cannot dictate to Seius and Sempronius that their happiness, the object of their pursuits [*i.e.*, the object which they are morally justified in pursuing], consists in the enjoyment of

plenary property in the possessions, and dominion over the person of Titius and of all others. For these contain a manifest contradiction; and, therefore, only one of these dictates can be supposed true. But, since there is no cause why the happiness of one of these should be his ultimate end [*i.e.*, the end which he is morally justified in pursuing as his all-inclusive end] rather than the happiness of another should likewise be his ultimate end; we may conclude that reason dictates to neither that he should propose to himself his own happiness only as his greatest end, but to every one, rather his own in conjunction with the happiness of others; and this is that common good, which we contend is to be sought after" (V., xvi., 2; *cf.* II., vii.; V., xxx.). Since there are but two ends that can urge a serious claim for acceptance, namely, the greatest attainable good of self and the greatest attainable good of all (V., xvi., 1), the refutation of the former leaves the latter in possession of the field. The device, since become popular, of denying in the name of egoism the existence of all morality Cumberland did not consider, because he never thought of it. Nor, for that matter, was any such idea in the mind of Hobbes, despite all that has been said about the latter's ethical scepticism.

Thus Egoism involves itself in contradictions at every turn. Nevertheless it starts on the right track because it asserts the duty of choosing one's greater good in preference to the less. Its errors are due to a failure to think out to the end the implications of this initial principle. When that work has been done the conclusion will be seen to be unavoidable that the sum of reason's law is to aim at the realisation, as far as lies within our power, of "the greatest good of all".

The content of the right must be described, as we have found, in terms of the good. What then is the meaning of good? Cumberland's negative answer seems as definite as could be demanded. He repudiates with vigour the view of Hobbes that good means the desired as such. "I, on the contrary, am of opinion that things are first judged to be good, and that they are afterwards desired only so far as they seem good." His positive view he attempts to state in words which immediately follow the preceding: "A private good is that which profits one, public, which is of advantage to many; not because it is desired from opinion, whether true or false, or delights for this or that moment of time. The nature of man requires that reason examining the nature of things should, from the evidence thence unalterably arising, first determine and judge what is good (whether in relation

to ourselves or others), before we desire it or are delighted therewith" (III., ii., 2). Good thus means that which profits. But this information does not carry us far, for the profitable means that which is conducive to happiness, whereas happiness, in its turn, is defined as the enjoyment of good things (I., v.; cf. II., iii., 2; V., xii., 6). Cumberland, who surpasses many of his successors in that he sees the necessity not merely of stating the content of the right but also of defining the term itself, has not devoted the same attention to the concept of the good.

We get more definite results when we turn to the inquiry, wherein happiness is held to consist, more specifically whether it is described in terms of Hedonism or of Perfectionism. To be sure Sidgwick in the *History of Ethics* (p. 173), and in the end, Albee (*History of English Utilitarianism*, ch. II.) have declared that an answer is impossible because of the ambiguities which pervade our author's discussion of this subject. Ambiguities there doubtless are, and there seems to be at least one contradiction to the view otherwise maintained. Nevertheless a careful collation of all the data seems to render the conclusion unavoidable that Cumberland is a Hedonist.¹

Once or twice, indeed, he refuses to answer the question as to the basis of value because he regards it as a matter of no great practical importance. "I have no inclination very curiously to inquire whether the happiness of man be an aggregate of the most vigorous actions which can proceed from our faculties; or rather a most grateful sense of them, joined with tranquillity and joy, which by some is called pleasure. These are inseparably connected, and both necessary to happiness" (V., xiii., 1; cf. *ibid.*, xii., 2, and xlii., 1).

Nevertheless at other times he finds it well within the scope of his plan to consider whether one or the other of the elements of this organic whole may not be the essential factor in its value, and his conclusion is always the Hedonistic one. Thus when he is arguing that we are affected with love of present and hope of future good earlier in life than with

¹ The one passage of significance which appears to be irreconcilable with Hedonism is the latter part of the following citation, which continues the quotation (above) from III., ii., 2. "It is the part of brutes only to measure the goodness of things or of actions by affections only, without the guidance of reason. . . . It is however more certain that a madman suffers a real evil though he be wonderfully pleased with his own madness; and on the contrary that a remedy is good for the patient though he should ever so obstinately refuse it." It should be said, however, that an ingenious commentator could so interpret these statements as to make them entirely consonant with Hedonism.

hatred or fear of evil, he bases his assertion upon the following grounds: "No man therefore loves life, health, or such grateful motions to the nerves and spirits as we call corporeal pleasures, or desires their causes that he may avoid death, diseases, and pain, but because of their intrinsic goodness, or positive agreement (to borrow a phrase from the schools) with the nature of our body. In like manner, no man therefore desires the perfections of the mind barely that he may avoid the uneasinesses of ignorance, ill-will, envy, and commiseration, but because of that superlative pleasure which we experimentally find in such acts and habits, which is the reason that to be deprived of them is most ungrateful" (Intro., xiv.; cf. II., iv., 4; V., ix., 1; xlvii., 3). Similarly the frequent recommendations of the active life are invariably based upon the fact that it is accompanied by pleasurable emotions (*e.g.* II., iv., 1-4; V., xiv., xv.).

Further evidence to the same effect is found in the list which is given of good things. The most important of these is declared to be the exercise of our bodily and mental powers when they are in full health and vigour. But "corporeal pleasures," or "agreeable sensations," are repeatedly included (*e.g.*, Intro., xiv.; II., iii., 2; iv., 4). Finally, there are many discussions which proceed upon the assumption that the only differences in things good are quantitative (*e.g.*, II., iv., 8; V., x., 1; xii., 6), while the existence of qualitative distinctions does not appear as the basis of a single argument.

The conclusion just reached will prepare us for a statement of the principles upon which we value moral excellence—the "perfection" of V., xii., as quoted above, page 373. It is valued primarily as a means to the attainment of things intrinsically good, whether for self or others. "Upon this head the Stoics are to be reprehended, who affirmed nothing to be good but virtue, nothing evil but vice. For whilst they endeavour to establish the transcendent goodness of virtue and the egregious evil of vice, they incautiously entirely take away the only reason why virtue is good and vice evil" (V., v., 1; cf. III., iii., 1).

Cumberland recognises that this principle of valuation may be applied to one's own character as well as to that of any one else. For if the happiness of others may be the direct object of my desire, as our author maintains it can be, I may value my own good habits not merely for what they bring me in the way of rewards, in the ordinary sense of that term, but also because they are the guarantee of the attainment of the larger end (*cf.* V., xlv., 3, 4). Apart from this a second

reason is recognised for valuing character, namely, its beauty (Introd., xxii., 4; V., xvi., 5; xxxi., 1; xxxii., 3). The recognition of this fact does not necessarily place a man outside of the boundaries of Hedonism, as is shown by the writings of Shaftesbury. This moralist has much to say about the love of virtue for its own sake. The value which he attributes to character from this point of view consists, however, in joy in its contemplation and possession, as distinguished from those advantages which follow virtue as one link in a chain follows another (*The Moralists*, Part III, sec. 3; *Characteristics*, vol. ii., ed. of 1732, pp. 422, 434; *Philosophical Regimen*, edited by Benjamin Rand, pp. 54, 55, 59). A comparison of these passages with *De Legibus Naturæ*, V., xvi., 5; xxxii., 3; xxxv., 8, will show that this was precisely Cumberland's position, though he did not state it quite so clearly as did his successor.

Cumberland is thus an Ethical Hedonist. His attitude towards Psychological Hedonism is more difficult to determine. His statements regarding this subject are vague and fragmentary. They appear also, at least at first sight, to be contradictory. On the one hand he asserts that all desire is aroused by the idea of the good, whether of self or others (V., xii., 6; cf. above, p. 376). On the other hand he stigmatises as nonsense the view which makes happiness the only end of action—and happiness, for him, as will be remembered, is merely the enjoyment or possession of the good. "To assign happiness as [the] object or end [of action] is not satisfactory. For since happiness itself . . . is confessed to consist in action, to say we act for happiness is to say no more than that we act that we may act" (V., xiii.; cf. II., iv., 4; V., xiv., 1, 3). Obviously where a pleasure depends upon an activity reaching its goal the activity must precede the pleasure, as Butler, later, explicitly maintained. However, it is not certain that we are here beyond the confines of Universalistic Psychological Hedonism. For the glory of God and the happiness of our fellow-men are at once presented as objects of action. With the difficulties of this position we are not concerned. We are in this place interested only in the fact that it was actually taken. In any event the view of Butler that pleasure arises only from the satisfaction of desire is not maintained. The attainment of sense pleasure is a possible end, and there is no suggestion that the pleasure in this case necessarily follows and is dependent upon the desire. On the whole, in view of his repeated assertions as to the relation of desire and the good, we shall do best to set him down as a Psychological Hedonist of the universalistic type.

To be sure it passes as an axiom among certain moralists that Psychological Hedonism is necessarily egoistic. The apparent axiom would turn out, if examined seriously, to be nothing better than a prejudice, like many other ethical "axioms" which have had their day in the schools. If Cumberland was a Psychological Hedonist it is certain that his mind was quite innocent of any such conception. It never occurs to him seriously to doubt the possibility of desiring for another what one desires for himself. He confines his efforts in this field, therefore, almost exclusively to asserting the actuality of such desire. It is true that he does not get much beyond bare assertion. This is, indeed, his limitation throughout. One of the richest of all moralists in ideas, ideas which have demonstrated their value through the rôle they have played in the subsequent history of ethics, we are all too frequently disappointed by the meagreness of the evidence offered in their support. This statement holds for the case before us. What we are given is an impressive and, at bottom, unequivocal assertion of the principle that the good of another may be to me a direct object of desire, in the same sense in which my own good may be. "I also own it possible through an abuse of his free-will that a man (through his own fault) of a narrow soul, may consider nothing beside himself, and may, therefore, desire almost nothing but what he judges profitable to himself; but I could never observe any symptoms of such a will in any man except in Hobbes only. Others are certainly of a more generous disposition who do not think that alone to be good which is such to themselves; but whatever conduces to the preservation and perfection, to the order and beauty of mankind, or even of the whole universe, as far as we have any conception of it, that they think good, that they will and desire, that they hope for for the future, and rejoice in when present. Nor see I anything to hinder but that what I judge agreeable to any nature I may desire should happen to it; nay, that I should endeavour, as far as in me lies, that it should be effected" (III., iv., 2. See the entire section. Cf. also V., xii., 6; xiv., 2; xlv.-xlvii.).

All through this and practically every other discussion of this subject there runs a principle which lies at the very foundation of the system—the principle, namely, that egoism and altruism have the same psychological root. The good as such, independently of its relationship to this or that possible possessor, tends to arouse the desire to realise it. Of this fundamental desire, self-regard and benevolence are but two different branches. The details, as far as they are

given us, are as follows. The first element of the moral life to appear is the desire of the good as such. This is non-rational. Then reason—here used as a name for our intellectual powers as a whole—enters with its ideas of greater and less, cause and effect, and others not specifically named. This new factor operates upon the object of the desire by extending its boundaries until finally, if the full maturity of reason is reached, the object of the desire has expanded until it includes the whole of one's life, and the lives of all other rational beings (IV., i., ii.; III., iv., 3; V., xlv., 3, 4; xlvii., 2, 3). The precise nature and source of the motive power of these creations of reason are left—probably with deliberate purpose (IV., i., 5)—for the reader to work out for himself.

In the foregoing paragraph we have described how reason enters as a motive power into conduct. There exists no aversion from the contradictory in conduct, *per se*. But when a man is placed before alternative courses of action, reason presents the ideas of the greater and the less good, and applies them to the possibilities which the situation creates. The former idea necessarily determines the direction of volition except as the reason affirms that to be the greater good which it has just pronounced to be the less,¹ or as the desire for the less good succeeds in defeating its rival. In either case the man has contradicted himself, and has thereby, as we have seen above, failed of moral truth, or, in other words, has committed a wrong.

This however is not the end of the matter for the guilty agent. "Such a contradiction, above all others, greatly hurts the soundness, peace, and contentment of the mind in its actions" (V., xvi., 5; cf. xxxvi., 4). On the other hand he who acts with consistency "acts agreeably to his intellectual nature. And what is agreeable to nature, gives it pleasure" (V., xiv., 2). This pleasure is not a satisfaction due to the maintenance of logical consistency in conduct, as such. As stated above, the existence of a feeling of that kind is not recognised. Wherever the satisfaction in question is described with any definiteness, it is always represented as the joy of tranquillity, or of peace between the desires (Introd., xx.; I., vi., 4; V., xvi., 5).

These pleasures and pains, like all others, are capable of serving as motives to action, and because of their alleged intensity, as very powerful motives. They do not occur alone. Along with them arise other pleasures and pains, some of which are almost, if not quite as intimately con-

¹So I interpret the words, "Unless the understanding judges falsely or inconsistently," in V., xiv., 2.

nected with the moral quality of the action. Such are the enjoyment of the beauty of a harmonious life, joy in the felicity of other beings, and the consciousness of the favour of God. Others again are more remote; they make up the extrinsic effects of the action upon the happiness of the agent. The existence of these effects, intrinsic and extrinsic, is an empirical fact. The consideration that the feelings in question follow the deed not by chance, but as a result of the structure of the human mind in its individual and social capacity, that this mind, in its turn, is the creation of God, so that the existence of the relationship between act and feelings is a clear indication of the will of God concerning us—these considerations lead us to the conception of obligation, the discussion of which occupies many, many weary pages of the book.

Obligation is defined as "that act of a legislator by which he declares that actions conformable to his law are necessary to those for whom the law is made. An action is then understood to be necessary to a rational agent when it is certainly one of the causes necessarily required to that happiness which he naturally, and consequently necessarily, desires" (V., xxvii., 4). This definition, we are informed in the same section, is based upon that given by Justinian: "Obligation is that bond of the law by which we are tied with the necessity of paying anything, according to the laws of our state". The narrowness of the Roman definition Cumberland criticises on the grounds that it is confined to the laws of a single nation and that it looks chiefly or solely to punishment. For him reward is the more important, and even more primitively effective element in the term. Removing from it then all accidental limitations, and carrying it up to the supreme legislator, the final account of the feeling of obligation is obtained as the sum of the motives for obedience to the rule of right derived from the rewards and punishments attached to human actions by God in creating man. Where the rules of reason are backed in this way by these sanctions they become "the laws of nature". But in reading this account it can not be too carefully noted that the obligatory is not for Cumberland, as it is for many later writers, identical in intension with the right. Unless the actions commanded by God had been antecedently right, God would not have been justified in demanding them (VII., vi., vii.; VIII., i., 2). In man, again, the knowledge of right and wrong is one thing; the egoistic considerations by which he may be induced to pursue the one and avoid the other, are another thing (V., xxxv., 8). The highest type of man, as has already been pointed out, needs no inducements

of this nature (see above, p. 381, and V., xlvii., 2). Indeed no action of ours really deserves the name of right except as our motive in performing it is identical in nature with God's motive in commanding us to do it (V., xlvii., 1). The place of obligation in the moral life is accordingly to be conceived as follows. In the process of development from childhood to manhood we begin with a narrow outlook. The happiness of self is what, at first, chiefly moves the will. To a mind thus constituted comes the discovery that its own interests are best attained by the service of one's fellow-men and of God. While obeying the call which thus comes to his ear the desire is born and grows for the realisation of these ends apart from any consideration of personal gain; not through any artificial process of association (as with many later writers), but through the awakening of a direct interest in other persons consequent upon a better acquaintance with and realisation of their nature and needs (V., xlv.). Thus obligation is merely a schoolmaster to bring us to the free service of the perfect man. If this seems to fail of agreement in any respect with the account given on pages 380 and 381 above, which is based primarily upon Book IV., chaps. i. and ii., we have no materials at our disposal by which to harmonise them.

We may now summarise Cumberland's position with regard to motives and values as follows. The good of self and the good of others are to be estimated in terms of pleasure. Each of these we desire directly. The desire for the maximum of personal good is found in every human being; the desire for the maximum good of others is more sporadic. While self-regard and benevolence are two distinct motives, in the sense that the second is not a mere modification of the first, the ends at which they aim prove to be entirely harmonious. Accordingly if you should inquire what we should do or what we ought to do if they were incompatible with each other, your question would be an idle one, like Lord Dundreary's famous question, If you had a brother would he like cheese? To the moralist of to-day, indeed, the problem thus left unsolved will appear an extremely important one, but our author was quite unconscious of its existence. Historically the first real attempt on the part of Rationalism to deal with it was the doctrine of authority originated by Butler and perfected by Price. If Cumberland himself had been asked as to the ultimate grounds of the equal authority of the regard for one's own good and the equal good of one's neighbour, I think he would have replied—if we may judge from the spirit of his system as a whole—

that while particular desires may and indeed must be evaluated according to the satisfaction afforded by their realisation, yet as between self and others there is no more reason why I should control my desires for my neighbour's happiness by what I expect to get out of it for myself than there is why (as is the case, in a certain fashion, in the Comtian scheme) I should evaluate the satisfaction of my own desires in terms of their value to others.

II.

THE INFLUENCE OF CUMBERLAND UPON CLARKE AND SHAFTESBURY.

The assertion has been made that Cumberland was one of the three or four most influential writers in the entire history of British ethics. Nevertheless it must be admitted that the moralists of the second generation after him, and also their successors, show either few or no traces of genuine, first-hand acquaintance with his thought. Undoubtedly they all read *De Legibus Naturæ*. But the reading seems to have been a superficial one. At all events it left little definite evidence of itself upon their pages. Cumberland's influence depends chiefly upon the fact that all the Eighteenth Century British moralists who wrote after the first decade of the century were profoundly influenced either by Clarke or by Shaftesbury, or oftentimes—as in the case of Butler—by both; and that the moral systems of these two men were in their turn based upon the writings of Cumberland to an extent which, apparently, has hitherto been scarcely suspected.

Evidence of the intimate dependence of Clarke upon Cumberland meets the eye upon the most cursory reading of the ethical works of the former. That portion of the Boyle Lectures which deals with ethics (being Sections I. and II. of a *Discourse Concerning the Unchangeable Obligations of Natural Religion*, etc.), contains about twenty-three thousand words. In this short space Cumberland is quoted twenty-two times, always with approval. No other writer of that century is quoted at all, except Hobbes and Spinoza, and these, of course, only to be refuted. A study of these quotations, however, gives a very inadequate conception of the indebtedness of the later to the earlier writer. To understand their relationship we must turn to a direct comparison of their views.

Clarke's summary of his own position does not, indeed,

particularly suggest Cumberland. He writes: "The same necessary and eternal different relations that different things bear one to another; and the same consequent fitness or unfitness of the application of different things or different relations, one to another; with regard to which the will of God always and necessarily does determine itself to choose to act only what is agreeable to justice, equity, goodness, and truth, in order to the welfare of the whole universe; ought likewise constantly to determine the wills of all subordinate rational beings, to govern all their actions by the same rules for the good of the public, in their respective stations. That is: these eternal and necessary differences of things make it fit and reasonable for creatures so to act" (*Discourse*, tenth edition, p. 28). Even here, however, we note a number of resemblances. The fit is interpreted, or at all events supplemented by, the reasonable, and the good of those affected is explicitly stated to be the end. Furthermore, the wrong is everywhere conceived of as the self-contradictory; moral distinctions are held to depend not upon the fiat of God but upon the nature of things; and the agency of innate ideas in the perception of moral (and intellectual) truth is denied. The precise relationship between the two authors, however, can best be made clear by an examination of the concrete "rules of righteousness," which together form, according to Clarke, the content of duty.

These rules are four in number, and are called the rules of piety, equity, benevolence, and sobriety, respectively. The fourth, which is the name given to the duty to self, does not call for special comment. In distinction from Cumberland, and in contradiction to his own point of view as expressed in other places (*e.g.* p. 75), duty to self is based upon the necessity of a wise self-regard as a means to the maintenance of the ability to obey the other moral laws (p. 60). Piety, as here conceived, also has no real analogue in Cumberland's system. It is described as congruity or fitness between "the exercise of God's several attributes" and "suitable returns of duty and honour from all his rational creatures throughout the universe" (p. 51). This fitness is "as plain and conspicuous as the shining of the sun at noon-day" (p. 52). Here the matter is left in the systematic discussion of the duty—except for an excursion into the realm of the æsthetic. But in another place (p. 40) we are informed that "he that wilfully refuses to honour and obey God . . . is really guilty of an equal absurdity and inconsistency in practice, as he that in speculation denies the effect to owe anything to its cause, or the whole to be bigger than its part". This is, obviously,

a desperate attempt to bring piety, as Clarke defines it, under the categories of Cumberland's system.

The fourth rule of conduct, then, has no point of contact with Cumberland's thinking; the first shows a departure from his spirit with an attempt to remain true to the letter. The second and third, on the other hand, are, in their formulation and mode of establishment, nothing but the creations of the older writer. The rule of justice reads in one of its several statements: "Whatever I judge reasonable or unreasonable for another to do for me, that by the same judgment I declare reasonable or unreasonable that I in the like case should do for him". "To deny this, either in word or action, is as if a man should contend that though two and three are equal to five, yet five are not equal to two and three." Thus "iniquity is the very same in action as falsity or contradiction in theory" (p. 54). Clarke is at first inclined to identify this law with the Golden Rule. But recognising quickly the impropriety of such a procedure, he points out that the measure of justice is not what "any unreasonable passion or private interest would prompt you, but what impartial reason would dictate to you to desire" (p. 55).

The third rule—that of benevolence—demands "a constant endeavouring to promote in general, to the utmost of our power, the welfare and happiness of all men". The obligation thus to act is established as follows: "If (as has been before proved)¹ there be a natural and necessary difference between good and evil, and that which is good is fit and reasonable, and that which is evil is unreasonable to be done, and that which is the greatest good is always the most fit and reasonable to be chosen: then . . . every rational creature ought . . . to do all the good it can to all its fellow-creatures" (p. 57).

The law of justice, as formulated above, is obviously a mere restatement of the following passages from *De Legibus Naturæ*. "Right reason in one cannot dictate that which contradicts right reason concerning the same things in any other person" (II., vii., 1); and again: "Whatever any one of these, from the dictates of right reason, wills should be done to himself or others, that do all, who are truly rational, will necessarily and always, so far as they come to the knowledge thereof" (V., xxx., 1). In both authors these statements appear as conclusions from the principle that the wrong is the self-contradictory.

¹ This refers to previous assertions that moral distinctions are objective, or as Clarke terms it, uneradicable.

That the deduction of the rule of benevolence is identical at most points with Cumberland's first proof that "the greatest good of all" is the moral end, will be evident to those who remember the presentation of this subject given in the preceding instalment. It is true that Clarke fails to introduce specifically the premise which gives Cumberland's argument against egoism its force, the principle, namely, that we are morally bound, in so far as we are at liberty to consider only our own interests, to choose a larger attainable good for self in preference to a smaller one. This fact, however, serves the more completely to exhibit Clarke's dependence upon Cumberland. He has copied an argument without apprehending clearly the foundation upon which it rests.

Clarke's ethical theories thus appear to have their source chiefly in the writings of Cumberland. If the study here attempted could have been supplemented by a minute examination of his language, this conclusion would have appeared still more convincing. That which has done most to obscure the fundamental identity of the two systems is the difference in the treatment of our duty to God. Clarke thought this ought to be placed upon a basis quite independent of our duty to our fellow-men. In working out the details he found some difficulty in bringing disobedience to this rule into the category of the self-contradictory. He therefore fell back upon the vague pair of terms, the fit and the unfit, placing the former by the side of the rational in the sense of that which is free from self-contradiction, presumably without asking himself very definitely precisely what the fit means. Apart from this he undoubtedly differs from Cumberland in some important respects. The chief ones are, the number of the fundamental rules of right and the entire treatment of the duty to self, which have already been referred to, the meaning attached to the word obligation, and probably the manner in which reason affects the will (*cf. op. cit.*, pp. 38 and 40 with above, p. 381)—though in this last matter it is very far from certain that he was conscious of the difference which appears to obtain between Cumberland's views and his own. After due allowance has been made for these divergences, however, we are still justified in asserting that the greater part of Clarke's ethical doctrine, as far as fundamentals are concerned, is simply a copy, in somewhat different formulation, of what he had read in the great treatise of the Bishop of Peterborough.

The relationship of Shaftesbury to Cumberland is a decidedly more complicated problem than that which we have just been studying. Shaftesbury is a far more independent

and vigorous thinker than Clarke. His answer to the fundamental question of ethics, the meaning of the word right, is a totally different one from that of Cumberland. And what he borrows,—if he does borrow,—he so thoroughly assimilates that its origin is not evident at first sight, and is in no one case really demonstrable. The evidence of dependence is to be sought rather in the *ensemble* of his views. The points of identity in the two systems are so numerous and occur under such conditions that the doctrine of chances seems to exclude the possibility of mere coincidence. The problem is further complicated by the familiarity of both authors with the works of the Greek moralists, and their unquestionable independent acquaintance with the fragmentary but suggestive ethical writings of Bacon and Grotius. On the other hand certain influences upon Shaftesbury can with great probability be excluded. The first edition of the *Inquiry concerning Virtue* appeared in 1699; the *Discourse concerning the Unalterable Obligations of Natural Religion*, in 1705. For this and other equally good reasons we are justified in believing that the writings of Clarke had no appreciable effect in shaping his views. A study of the Cambridge Platonists will exclude the idea of any important influence from that direction. The sources of Shaftesbury's ethics, in so far as they come from without, are to be found in the Greeks, possibly in some part in Bacon and Grotius, and, of other modern writers, principally or entirely in Cumberland. In view, however, of the complexity of the situation, the most that it is profitable to attempt to do is to present the common elements of the two systems, recognising, as we must, that we can probably never determine the exact amount of indebtedness of the younger to the older writer.

In the first place, then, their account of the content of the moral standard is almost the same. For Shaftesbury as for Cumberland human society is an organism, each member of which is dependent, through and through, either directly or indirectly, upon every other (Cumberland, II., xiv.; xxxi., 2; Shaftesbury, *Characteristics*, vol. II., p. 14 ff., being *Inquiry*, Book I., Part II., sec. 1¹). The moral end is the greatest attainable good of the entire system. The individual is to pursue his own good so far and only in so far as it is compatible with this larger end, so that there are both a direct duty to self and a direct duty to others (II., 20-23; 90).

The good cannot be defined as the desired. This leads to

¹ Fifth edition, 1732.

contradictions, for the attainment of the desired is often followed by disillusionment (I., 318-325; II., 129, 149; III., 196-205). It is rather that "which can afford contentment and satisfaction always alike, without variation or diminution" (II., 237), or "that in which the nature of man is satisfied and can rest contented" (II., 436). Obviously Shaftesbury has not got beyond the realm of the desired in his definition of good, after all, since satisfaction involves desire. Doubtless he would have accepted some such definition as that offered by Sidgwick in the sixth edition of the *Methods of Ethics* (Book I., chap. ix.). At bottom, this was probably the position of Cumberland, though he had not formulated it very clearly in his own mind.

The conceptions of the two authors regarding the content of the good show certain differences rooted in fundamental identity. Cumberland, as will be remembered, looks upon the joys of virtue as the most valuable element in life, but he admits to the circle of the good the pleasures of sense and much else that Shaftesbury either ignores or repudiates. Shaftesbury holds, on the other hand, that there is no other good but the beautiful, of which virtue is one form (II., 422; cf. III., 30-34, 184, 185). Thus he appears at first sight to be antihedonistic. But the pleasure which he declares is not a good turns out to be a special kind of pleasure, that of sense, while, on the other hand, pain of all kind is declared to be, as such, an evil (II., 225-238). And, what is of more significance, it is the *enjoyment* of the beautiful that is the good, so that the latter is described in strictly hedonistic terms (as above, II., 422; cf. 237 ff.; III., 196-205; also *The Philosophical Regimen*, edited by Benjamin Rand, *Essay on Good*, and III., *passim*, especially p. 59).

The most important difference between Cumberland and Shaftesbury is in their account of the meaning of the term right. The great majority of moralists can be divided into two great schools with reference to their attitude towards this problem. On the one hand, there is Rationalism. The name describes the position: right means the rational. The other view must be called Idealism. For it, right conduct means that which tends to arouse a certain emotion—it may be either admiration or approbation; in other words, the moral judgment has its source in an ideal. This name, or an adequate substitute, will have to be adopted, even if it involves some shifting of nomenclature elsewhere, particularly in metaphysics. For our present systems of classification are a disgrace to ethics. Rationalism (or "Intuitionism") is usually regarded as the antithesis of Utilitarianism. But

our study of Cumberland must have shown, what should be obvious without it, that Rationalism and Utilitarianism are not mutually exclusive terms, and that for the simple reason that they are the products of different points of view. The latter represents one answer to the question, What actions are right? the former is an answer to the question, What is meant by calling them right?

In his answer to the latter—the most fundamental of ethical problems—Cumberland, as we have seen, stands with the Rationalists. Shaftesbury, on the other hand, is an Idealist. For like the other members of the British "Moral Sense" school, specifically Hutcheson, Hume, and Adam Smith (for in his view of the nature of the ultimate basis of moral distinctions Adam Smith does not differ one whit from Hutcheson), he places the source of moral distinctions in the emotions. It is possible this statement may be denied, for is it not one of the commonplaces of ethical history that he regarded moral distinctions as having their origin in an "internal sense"? It is certain that he uses the term, sense of right and wrong, and even, on a few occasions, moral sense, in naming the source of the moral judgment (II., 40-46, especially in marginal analysis). But he also uses, in the same connexion, the terms heart, taste, reflexion, self-inspection, and, perhaps as frequently as anything else, reason. It is natural that a pupil, even an unorthodox pupil, of John Locke should use the term "internal sense" for any element of consciousness—or for the "faculty" which produces that element—which cannot be related with the organs of "external sensation". The question remains, however, what did he mean by it? The answer is a simple and definite one. The harmony which appears when the members of a society treat the welfare of each of their fellows and of themselves in such a way as to bring out the greatest attainable good for all—the harmony of this well-ordered system arouses the emotion of the beautiful. It is the apprehension of such a system and the admiration it evokes which give rise to the adjective right. Thus, as has been asserted, the ultimate source of moral distinctions is placed by Shaftesbury in the emotions. This is set forth with sufficient clearness in the following passages from the second volume of the *Characteristics*: p. 53, par. 2; p. 117, par. 3-119; p. 284, par. 3-291 (to be compared with pp. 14-22, i.e. *Inquiry concerning Virtue*, Book I., Part II., sec. 1); p. 75, par. 2; p. 294, par. 2. These will explain the better known, but somewhat vague passage in the *Inquiry*, Book I., Part II., sec. 2 (pp. 28-36).

What has all this to do with Cumberland? A great deal.

For it is precisely at this point where the divergence between the two men is greatest, that Cumberland's influence seems most clearly demonstrable. The ground of this statement is that Shaftesbury has incorporated into his Idealistic conception of right certain of the most characteristic features of Cumberland's Rationalism.

The most important of these is the doctrine that the moral judgment is the expression of something more than a mere subjective whim (I., 336-341, 350-355, II., 416-421; III., 164-185, 303). Great as is the amount of variation in human opinions as to what is right and wrong, some of them are entitled to the designation true, while the remainder must be called false. The conditions which a moral judgment must meet if it is properly to be called true are three in number. It must, in the first place, be—in the words of a later generation—the judgment of an "impartial spectator". In the second place it must be the judgment of one whose view includes the entire situation under consideration. Finally it must be the expression of a point of view which the person judging is willing to apply consistently to all similar cases. The first two of these conditions are mentioned only occasionally and in passing; it is probable that their full significance was not realised by Shaftesbury. It remained for Hume and Hutcheson respectively to show in detail their nature and the part they play in the formation of the moral judgment. The third condition, on the other hand, and the doctrine of objectivity which underlies them all, appear again and again, so that there can be no question of the importance of the place they occupied in his thought.

The first condition is stated in the following words: "In all disinterested cases [even the false or corrupt heart] must approve in some measure of what is natural and honest, and disapprove what is dishonest and corrupt" (II., 30; cf. 113). The fact that in the moral judgment we are looking, or believe we are looking, at the actions of human beings, both ourselves and others, not from the point of view of the accidental relation of these actions to our selfish interests, but in abstraction from these considerations, so that the moral ideal represents our ideal of action for humanity as such under the given conditions—this fact is one that finds frequent mention in *De Legibus Naturæ* (see above, p. 386).

The second condition which a judgment must meet if it is to be considered true is that the emotion which is at its source must be due to a complete view of the situation. Shaftesbury states this as follows: "Thus every immorality and enormity of life can only happen from a partial and

narrow view of happiness and good" (III., 304-305). The illustrations offered show that he had not grasped this principle in all its bearings. Like the preceding, it represents at best a detached glimpse of a truth of wide application and great significance. The nearest to an anticipation of it to be found in Cumberland is the following: "Only that measure of all our affections is consistent with the nature of a rational being and of the universe which exactly corresponds to the true valuation of those things good and evil by which they are excited" (VIII., xiii., 1). This, however, has more points of affinity with Shaftesbury's view than appears on the surface. There is here, also, a suggestion of Cumberland's doctrine of the cause of error in general, according to which it is always due to the feelings inciting the judgment "to determine points not sufficiently cleared up" (II., x., 1).

Finally a true moral judgment is the expression of an ideal that is free from inconsistencies. "We might then understand how to love and praise when we had acquired some consistent notion of what was laudable or lovely" (I., 41). Evil can never be reduced to self-consistency (III., 312). Sometimes inconsistency is described as exhibiting itself in our judgments with regard to our own good, the results of following the desire of the moment. It is also represented as appearing in the arbitrary choice of those whom we are willing to serve: "Partial affection, or social love in part, without regard to a complete society or whole, is in itself an inconsistency and implies an absolute contradiction. . . . If [our affection] . . . be applied only to some one part of society, or of a species, but not to the species or society itself, there can be no more account given of it than of the most odd, capricious, or humoursome passion which may arise. The person, therefore, who is conscious of this affection can be conscious of no merit or worth on the account of it. . . . It has no foundation or establishment in reason" (II., 110; the entire passage to page 114 should be consulted. Cf. also pp. 122-124). Such inconsistency, it is then argued, precisely after the manner of Cumberland, carries with it its own penalties.

When these conditions have been met Shaftesbury holds there will be universal agreement in the moral judgments of men, because the power of admiration for harmony and order exists in some degree in every human being (II., 43-44; III., 197 n., 303). It may indeed be more easily evoked in some persons than in others; it may be led astray by custom, education, false theological doctrines, and other causes. Nevertheless (apparently) it can never be entirely lost. And

every one who desires so to do may, by exertion, develop it in himself to its perfection (III., 186).

It will now be obvious why Shaftesbury assigns a leading rôle to reason in the production of the moral judgment. Emotions arise normally as a reaction upon the perception of a certain situation. The power to see a situation as it really exists is thus a *sine qua non* for a judgment that can lay any claim to future acceptance on our own part or to the acceptance of other people.

It is in this account of the meaning of the word right that the unique significance of Shaftesbury will be found to lie. He was the first to declare explicitly that moral distinctions have their source in the emotions. At the same time he caught glimpses, more or less detached, usually incomplete, but always accurate as far as they went, of the modes in which reason functions in the formation of the moral judgment. Furthermore he saw, with great, though doubtless not complete clearness, under what conditions Idealism can assert that notwithstanding the actual variations in moral judgments, there can be such a thing as a universally valid standard. If the emotional endowment at the root of the moral judgment exists, in whatever state of development, in every member of the race, then all the variations are due to irregularities in the working of the rational factor, and must therefore disappear with the correction of such irregularities. In working out his views it is possible that he did not always keep clearly in mind the great gulf which still separates his system from that of Rationalism. At all events he does not explicitly recognise that the adjective true must be applied to moral judgments in a sense different from that in which it is applied to the judgments of logic. The moral judgment does indeed claim to be based upon a perception of the situation as it actually is. But it claims more. It is, if Idealism be true, the expression of an ideal. And it claims that this ideal has been freed from all entanglement with purely personal ends, and that it forms in its entirety a self-consistent whole. Hence we should do better to speak of moral judgments as valid rather than as true. For validity means precisely this that a thing is what it gives itself out to be. But if Shaftesbury had seen every implication of his doctrine he would have done something that no other innovator in philosophy or in any other department of thought has ever succeeded in doing. What he actually accomplished was the work of a genius. He laid the foundations of one of the great types of ethical theory.

In his work of observation and thought it is impossible to

doubt that he was profoundly influenced by Cumberland. So that if Shaftesbury was saved from the subjectivism which, since the close of the eighteenth century, has accompanied most Idealism—in so far as Idealists have faced the problem at all,—we may attribute this fact in large measure to the writings of the Bishop of Peterborough.

There remains for consideration the doctrines of our two authors concerning the moral motive. These are as nearly in accord as the divergences above described will permit. Each is a Psychological Hedonist.¹ Each believes in the existence of a direct desire for the good of others. Among the egoistic motives for the service of our fellow-men each recognises joy in the possession of inner harmony and the love of the beautiful in character; although the second naturally plays a far more important rôle in the later system than in the earlier one. Again both authors believe that the true interests of egoism and altruism are in the end identical. Finally they agree in regarding the claims of egoism as having no primacy in any way over those of altruism.

This last statement contradicts the ordinary interpretation of Shaftesbury's system. It is commonly held that after having introduced the "natural affections," as he calls them, with much ceremony, and having assigned them a position of apparent equality by the side of the "self-affections," when he comes to the question, What reason is there for a man's serving his fellow-man? he abruptly turns his back upon them, and refuses to treat their interests as entitled to consideration in so far as they come into competition with those of their rivals. This view is an inference from the following fact. In the *Inquiry concerning Virtue*, after having discussed the nature of goodness and virtue and the effect upon them of religious belief, he writes: "It remains to inquire, what obligation there is to virtue, or what reason to embrace it?" (p. 77). The answer is given solely in terms of the pleasures of the agent. This is supposed to represent a lapse into Egoism. The conclusion is not flattering to the author's power of holding the thread of a comparatively simple train of thought. For, just before this, in his examination of the relation of the religious sanctions to genuine morality, he has declared in the most explicit terms that action for the benefit of others, undertaken with a view

¹The evidence for Psychological Hedonism in Shaftesbury's system is far clearer and more complete than it is in the case of Cumberland. Sidgwick's conclusion (*History of Ethics*, p. 184, note) is obtained by arbitrarily choosing one of two possible interpretations of a single ambiguous passage, instead of accepting the interpretation which results from looking at it in the light of the whole to which it belongs.

to any form of personal reward, has no moral value whatever. Are we compelled to believe that he could have forgotten this assertion so soon? This depends entirely upon what he means by the term obligation. Let us suppose that it is used in Cumberland's sense of the word—as the sum of the motives arising from a view of the rewards in the way of personal happiness attached by nature, or nature's God, to the service of our fellow-men—let us make this entirely admissible supposition, and the difficulties vanish. Both authors are agreed that a belief in the ultimate harmony of the ends prescribed by egoism and altruism respectively is a great protection to a man under the strain of severe temptation. If the above explanation is correct, Shaftesbury is attempting to do no more than to prove that this belief is justifiable. The words, "What reason to embrace it?" suggest, indeed, something more than this, the position, namely, that the egoist can gradually transform himself into an unselfish man from purely egoistic motives. This may be good psychology, or bad. In any event all of us must admit that in proportion as men approximate in nature to absolute egoism they can be reached only by egoistic motives. Surely, then, there is nothing necessarily incompatible with a Universalistic theory in the attempt to appeal to those of lower moral endowment through the considerations to which they are most sensitive. It may well be that this class was included among those whom Shaftesbury had in mind at this point. Accordingly, taking all things into consideration, we seem justified in concluding that the question which has given so much trouble is simply an announcement of the subject-matter of the rest of the essay, which is the ancient and entirely respectable one as to the relation between virtue and individual happiness.

With Clarke and Shaftesbury, as has been said, the chief demonstrable influence of Cumberland upon British ethics ceases. But the indirect influence, through these two thinkers, was tremendous, extending to and informing all schools in all their branches, with the single exception of Egoistic Hedonism. The English Platonists seem to have affected the course of British ethics—if at all—only through Cumberland. So that, if the published and unpublished works of this group of men had been destroyed towards the close of the Seventeenth Century, we have every ground for believing that the history of the later Rationalism would not have been changed in any important respect.¹

¹It is tempting to find the influence of Cumberland in the ethical writings of Kant's critical period. But a careful study of the develop-

III.

CUMBERLAND'S PREDECESSORS.

If we turn from Cumberland's successors to his predecessors we shall find that a very important part of what he gave the former was the product of his own mind. His account of the good, indeed, contains absolutely nothing new. But in his doctrine of the right there are original contributions of the highest value. Apart from some comparatively minor matters which we have not attempted to present they are found in two portions of the field. One is the doctrine of the standard. He is the first moralist who declares explicitly and in unambiguous terms that the essence of morality consists in the aim to bring about the greatest attainable amount of good for all those affected by the action; and, as a corollary, that the claims of self upon the agent are, in principle, neither greater nor less than those of any one else. The beginnings of this doctrine can be found in Bacon and Grotius, and indeed in the Greek moralists. But a comparison of Cumberland's teachings with the views of these men will show a definiteness and completeness of thought on his part for which we seek in vain among them, and which justify his claim to be considered the founder of Universalistic Utilitarianism. His second set of important contributions to ethics relates to the place of reason in the moral life. There was nothing new in the doctrine that moral distinctions are "objective," that they are independent of the will of God, and that they have their source in reason. But almost everything else in his account of the rational element in morality is original. Most Rationalists present as the content of the moral standard a miscellaneous mass of so-called intuitions whose relation to reason they make no serious attempt to exhibit. This statement is as true of Cumberland's predecessors, the Cambridge Platonists, as it is of the great majority of his successors. The founder of the Platonic School at Cambridge was Benjamin Whichcote. From his sermon *The Glorious Evidence and Power of Divine Truth*, we may infer that had he ever attempted a systematic presentation of his ethical views, the concrete

ment of Kant's thought in this field will lead to the conclusion that anything like direct borrowing is impossible to prove. While some relationship is not excluded by any facts in our possession, the chances are that Kant worked out his system of ethical Rationalism with no conscious dependence, at all events, upon the work of his great predecessor.

laws of action would have appeared as a series of more or less unrelated axioms. The same may be said of Nathanael Culverwel (see his *Discourse of the Light of Nature*, ch. VII.). More's *noemata moralia* are just such an agglomeration. Of Cudworth we can make no statement that is anything else than guesswork, for death cut him off before he had fairly begun his work in ethics. Cumberland, on the other hand, as we have seen, attempted to show that the moral code is due to the application of the fundamental principle of reason—that of contradiction—to the universal desires of men. In working out this conception he hit upon much that had hitherto remained unnoticed. He was the first to bring into the foreground the principle that the judgment of right is of such a nature that if it applies to one person it applies to every one else under the same conditions. He first recognised adequately the place of consistency in our moral judgments. It is true that the term consistency is constantly used in Stoic ethics. But it has a very different signification there from what it possesses for Cumberland. It is but a sign of unbroken firmness of will in the control of the emotions, instead of being an essentially logical category. Finally he made a unique use of the principle of consistency in the doctrine that the mind "is inconsistent with itself when it determines to act after one manner in relation to itself and after another manner in relation to others that partake of the same nature".

It is these rationalistic elements in Cumberland's system that most need to be brought to the attention of ethical students to-day. His account of the standard is familiar to every one. But his other teachings are all too frequently ignored. He doubtless erred in putting forward the universal validity of the moral judgment as an assumption. It should have appeared as a result rather than a postulate. But in laying down the principles stated in the preceding paragraph he pointed the way leading to the ultimate establishment of this conception. That what is right for one is right for every one else under the same conditions is, in a sense, a commonplace. Nevertheless its significance is not infrequently overlooked, especially by Idealists, though Hume has shown in detail what Shaftesbury suggested, its place in an Idealistic theory of ethics. Much the same might be said of the principle of consistency, except that here no follower of Shaftesbury has taken up the problem where he left it. It is true that Cumberland's identification of the inconsistent with the self-contradictory cannot be justified. To accept contradictories is to believe differently about the

same, while the pursuit of the inconsistent involves feeling and acting differently about the same; it is a building up with one hand and tearing down with the other. Nevertheless both conceptions have their source in that power of the mind which, without falling into faculty psychology, we may fairly term reason. And thus far it has been members of the Rationalistic school that have done most to emphasise their importance. The doctrine that the principle, Love thy neighbour *as thyself*, is the only consistent form which the moral ideal can take lay practically unnoticed through most of the Eighteenth and Nineteenth Centuries, until it finally found a tentative, hesitating acceptance on the part of Sidgwick (see *The Methods of Ethics*, Book IV., ch. II.). There are some moralists to-day, of whom the present writer is one, to whom this principle seems to be destined to supply the immovable foundation for that universally valid moral code whose very existence has for generations been a subject of controversy.

V.—DISCUSSIONS.

THE NATURE OF SENSE-DATA.

MR. BERTRAND RUSSELL's little volume, *The Problems of Philosophy* (Home University Library, London, Williams & Norgate, 1912), will be read, as it deserves to be, by a wide circle of readers, —probably by a much larger number than any other philosophical book of recent years. For the work as a whole, I have no other feeling than that of sincere admiration. Mr. Russell has performed a difficult task with singular ability and success, and I know of no treatise better adapted to serve as an introduction to philosophical study or more calculated to stimulate reflexion upon the subjects with which it deals. Written in a style at once lucid and free from unnecessary technicalities, it resorts to none of the grosser means of winning popularity, and it is not unworthy of being placed alongside of Berkeley's *Principles* or of Hume's *Inquiry* as a sample of the way in which abstruse questions can be handled in the English language with genuine simplicity, conciseness and scientific exactitude.

The author has confined himself in the main to "those problems of philosophy in regard to which it seemed possible to say something positive and constructive". What he offers is, in fact, a theory of knowledge, worked out with much originality and independence of treatment. Sometimes, it is true, his interpretation of historical theories is open to question. I doubt, for instance, the justice of the charge against Berkeley of confusing the thing apprehended with the act of apprehension (p. 65), in view of the very emphatic distinction insisted upon in the *Principles* (§ 49), and I cannot understand how Kant can be represented as calling the physical object (in any sense of the term) the "thing-in-itself" (p. 134). But, as a rule, such criticism as the book contains is extremely suggestive and helpful. I propose here, however, to direct attention to one topic alone. In the earlier chapters, there is presented, as clearly and forcibly as could be presented, a view of sense-apprehension which seems to me untenable, and I think Mr. Russell's exposition indicates unmistakably where the essential points at issue lie. The following discussion is designed to bring these to light.

Emphasising the importance of distinguishing the act of awareness from that of which there is awareness, Mr. Russell determines,

in the case of sense-experience, to speak of the former as "sensation" and of the latter as "sense-datum". The sense-datum is, in his view, an entity distinct and separate on the one hand from the act of apprehension and on the other hand from the real or physical object. The existence of the sense-datum is not necessarily, he thinks, mental; it may be due merely to the relation of our sense organs to the physical object. But even though it be not mental, the sense-datum as an appearance must, I gather, depend upon the act of sensation, although I cannot find that the nature of the dependence is anywhere explained. The sense-organs stand, of course, in relation to a variety of physical objects other than that of which for the time being the subject is aware. Whilst I am gazing at the inkstand in front of me, rays from a number of other objects in the room affect the organ of vision, and it is difficult to say why, according to the theory, these latter should not give rise to sense-data, even though I am conscious only of the inkstand.

It is admitted (*a*) that in ordinary common-sense experience it is instinctively believed, at any rate in the case of sight, that sense-data are properties of the physical object, and (*b*) that there can never be reason for rejecting any instinctive belief except that it clashes with other instinctive beliefs. If, then, the instinctive belief that sense-data are properties of physical objects calls to be rejected, it has to be shown that it clashes with other instinctive beliefs, and I take it, that *its* rejection is more reasonable than the rejection of the other instinctive beliefs in question would be. How then, does Mr. Russell endeavour to comply with the requirements of the rule thus prescribed?

He relies for the establishment of his thesis upon the distinction between appearance and reality, between what things seem to be and what they are. I am not, of course, going to dispute the legitimacy of this distinction. Everything, however, depends upon the interpretation which is to be put upon it, and I shall try to show that Mr. Russell does not adhere consistently to one interpretation. First, however, let us see what the distinction itself is made to yield.

A concrete example is taken,—that, namely, of a table of a certain shape, with sheets of paper upon it, and before which the writer is sitting. Our problem concerns the sense qualities which the table seems to possess.

It will be sufficient to consider its colour. Evidently, so the contention runs, there is no one colour which pre-eminently appears to be *the* colour of the table, or even of any one particular part of it. The table appears to be of different colours from different points of view, and there is no reason for regarding one of these colours as more really its colour than the others. Further, even from a given point of view the colour will seem different by artificial light, or to a colour-blind man, or to a man wearing blue spectacles, while in

the dark there will be no colour at all, though to touch and hearing the table will be unchanged. Therefore, colour is not something which is inherent in the table, but something depending upon the table and the spectator and the way in which the light falls on the table. We have here, I venture to submit, an example of the fallacy of *non sequitur*. Suppose, for the sake of argument, that colour is inherent in the table, suppose the table has in reality a specific colour. Then, surely, there would be nothing to conflict with this supposition in the fact that such real colour will present a different aspect if another colour be reflected upon it, or if a blue pair of spectacles intervene between it and the observer, or if it be enveloped in darkness rather than in daylight. The reasoning would only be valid on the assumption that if the table is really coloured, the real colour *must* appear the same in darkness and in daylight, through a pair of blue spectacles and without them, in artificial light and in the sun's light,—an assumption extremely improbable, to say the least of it, and for which there is absolutely no warrant. And so, again, with reference to colour-blindness. Supposing that the table really is brown, and that by normal vision it is apprehended as brown, there is nothing extraordinary in the fact that it should appear different to the man whose vision is not normal. The extraordinary thing would be if it did not. If *normal* vision is the way in which the real colours of objects are more or less accurately apprehended, is it not a strange demand to make that *abnormal* vision must also likewise be a way of more or less accurately apprehending them? But, argues Mr. Russell, the colours seen by abnormal vision have just as good a right to be considered real as those seen by normal vision; and, therefore, to avoid favouritism we are compelled to deny that in itself the table has any one particular colour at all. We should be reasoning in an analogous way, were we to argue that if $2 + 2$ seem to a mad-man to be equal to 5, this has just as good a right to be considered the real sum of $2 + 2$ as the 4 which people of normal intellects take to be the sum, and, therefore, to avoid favouritism, we are compelled to deny that, in itself, $2 + 2$ has any one particular sum at all. Moreover, it is to be observed that this is not the way Mr. Russell argues when he is dealing with the *shape* of the table. If the opposite sides of the table are really of equal length, they will look as if the nearer side were longer; if they are really parallel, they will look as if they converged to a point away from the spectator, and so on. All these things, it is pointed out, are not commonly noticed, in looking at the table, because experience has taught us to construct the "real" shape from the apparent shape, and the "real" shape is what interests us as practical men. The table, then, has a real shape, even though from most points of view its shape will look different from its real shape. Why, then, should it not have a real colour, even though from some points of view the colour it seems to have will be different from such real colour?

I have said that Mr. Russell does not seem to me to adhere consistently to one interpretation of the distinction between appearance and reality. I have now to indicate why I think so.

There are, roughly speaking, two senses in which the nature of an "appearance" as distinguished from a "reality" may be construed. On the one hand, an appearance may be regarded as a way in which the reality is apprehended—as, in the case of a finite mind, a partial, imperfect, incomplete way in which the reality is known. So regarded, appearances will not have ascribed to them a mode of existence independent of, and separate from, the reality of which they are appearances. An appearance will not be looked upon as a *tertium quid* situate between the apprehending subject and the real thing or event apprehended by the said subject; it will be looked upon as a way in which the real thing or event is known, a way in which knowledge of the real thing or event is had. And it will be recognised that this very nature precludes us from conceiving of the appearance as belonging to the *ordo existendi*. To say that "we only know appearances" will be, accordingly, an inaccurate mode of speech. All that, in strictness, we should be entitled to say would be that we know things, but that we know them only in and through their appearances. The latter clause would be simply a repetition of the former, for both would have the same meaning. To know a thing would be to know it in and through its appearances. To contrast, then, the appearances of a thing with the thing as it does not appear will be an illegitimate procedure; the thing as it does not appear would be as little the real thing as the appearances abstracted from the thing would be the real thing. On the other hand, an appearance may be regarded as itself an existent entity—an entity that arises in some way through the operation of the real thing upon the mind, or, if it be preferred, produced through the operation of activities occasioned by the real thing upon the nervous mechanism of the individual subject. In that case, the appearances, conceived as distinct and separate from the reality, will be taken themselves to constitute a thing, and it will be *this* thing and not the real thing that will be held to be immediately known. The produced thing will thus be regarded as standing between the knower and the real thing, and thus the doubt will inevitably be awakened whether after all we are entitled to assume the existence of a real thing, which *ex hypothesi* can only be mediately inferred and never directly known. There will be, as Mr. Russell says, "no logical impossibility in the supposition that the whole of life is a dream, in which we ourselves create all the objects that come before us" (p. 35).

There is evidence in the work before us to justify the surmise that Mr. Russell is oscillating between these two radically different conceptions of the nature of appearances. He does not, that is to say, definitely face the issue whether it is the real things themselves that appear, or whether it is the appearances that appear. We find

him making in this respect irreconcilable assertions. For example, he maintains (pp. 23 and 24) that, in regard to the table "what we directly see and feel is merely 'appearance,' which we believe to be a sign of some 'reality' behind". "The reality," he goes on, "is not what appears," and consequently the question is forced upon us, whether we have any means of knowing that there is any reality at all. So, again, it is declared (p. 16), that "the real table, if there is one, is not the same as what we immediately experience by sight or touch or hearing". In other words, what is seen or touched or heard is not the real table as a physical object, but a complex of sense-data, which make up the apparent object. The latter is the private property of the individual experiencing; the former, if it exist at all, is the public property of a number of experiencing individuals. "Thus," we are told (p. 32), "if there are to be public neutral objects, which can be in some sense known to many different people, there must be something over and above the private and particular sense-data *which appear* to various people." Did these, and other assertions to a like effect, stand alone, we should inevitably interpret them as meaning that it was the sense-data, that is to say, the appearances, which appear, and not the physical object. But they do not stand alone. Mr. Russell is constantly, on the other hand, using phrases which can only mean that it is the physical object which appears, and that the sense-data are appearances of the physical object. For example, he writes (pp. 31 and 32) "when ten people are sitting round a dinner-table, it seems preposterous to maintain that they are not *seeing* the same tablecloth, the same knives and forks and spoons and glasses". So, again (p. 46) he tells us that "different people *see* the *same* object as of different shapes, according to their point of view". And once more, our knowledge, such as it is, of the table as a physical object is said (p. 74) to be "obtained through acquaintance with the sense-data that make up the appearance of the table". Did these, and other assertions to a like effect, stand alone, we should inevitably interpret them as meaning that it was the physical object which appears and is known through the appearances. This is not merely a verbal quibble; the difference between the two conceptions is crucial in respect to the question here at issue. It is one thing to say that we can only know things as they appear to us; it is quite another thing to say that we cannot know the things themselves but only their appearances. If the former is all Mr. Russell means, then his argument in favour of the proposition that it is quite gratuitous to suppose physical objects to have sensible qualities falls to the ground. If the latter is what he means, then he is face to face with the curious paradox that the things themselves do not appear at all, that it is only the enigmatical entities erroneously called *their* appearances which appear, and the question would at once arise whether these appearances do not require to be represented by yet other appearances, and so on *ad infinitum*.

I think a similar confusion is to be discerned in the distinction Mr. Russell makes between real and apparent space. The space of science, he argues, though connected with the spaces we see and feel is not identical with them. In the first place, space as we see it is not the same as the space we get cognisance of by the sense of touch; it is only by experience that we learn to connect tactual and visual space. But the space of science must be neutral as between touch and sight; it cannot, therefore, be either the one or the other. In the second place, real space is public, apparent space is private to the percipient. And in different people's *private* spaces the same object seems to have different shapes; the real space in which the object has its real shape, must, therefore, be different from the private spaces. But, here, again, one asks,—Are the so-called tactual and visual spaces different entities from the real space, or are they different ways in which the real space is apprehended? The whole drift of the argument would seem to imply that Mr. Russell regards them as different entities. And, in that case, one is led at once to inquire how the being of these apparent spaces is consistent with the account that has been given of the nature of sense-data. As we have seen, Mr. Russell will not allow that his argument about sense-data proves them to be in any sense mental. The existence of the brown colour ascribed to the table depends, for example, upon the causal relation of the physical object, in this case the table, to the visual organ. Would he, then, explain the origin of visual space in the same way? Is it also non-mental? And does it in like manner arise through the causal action of real or physical space upon the sense organ? The difficulties involved in such a supposition are, I take it, obvious. It is true Mr. Russell tells us that we can know nothing of what physical or real space is like in itself; "the kind of things which a man born blind could never know about the space of sight we also cannot know about physical space" (p. 30). But if we are required to assume that physical space in some way causes the apparent spaces which we do know, then certainly we are ascribing to the former a positive characteristic of a quite peculiar kind and it will not do to justify our procedure by falling back upon our ignorance. We should be bound, at least, to ask whether that characteristic is consistent with the assumptions we are required by science to make in regard to real space.

I pass to another aspect of the question. I have alluded to the distinction Mr. Russell draws between "sensation" and "sense-data". The latter are "the things that are immediately known in sensation," the former is the act of awareness itself. Unfortunately he does not always himself adhere to this distinction, and on that account, in regard to the criticism I am going to urge, there is some amount of uncertainty. For example, it is said (p. 16) "the various sensations due to various pressures on various parts of the body cannot be supposed to reveal *directly* any definite pro-

perty of the table, but at most to be *signs* of some property which perhaps *causes* all the sensations, but is not actually apparent in any of them". Evidently here the term "sensations" indicates what are elsewhere called "sense-data". So, again, he writes (pp. 30 and 31), "when we have enumerated all the sensations which we should naturally regard as connected with the table, have we said all there is to say about the table, or is there still something else—something not a sensation, something which persists when we go out of the room?" Clearly, here also for "sensations" and "sensation" one should read "sense-data" and "sense-datum" respectively. But, now, keeping to the distinction upon which Mr. Russell insists, and remembering that the distinction implies for him separation, I raise the following query. Does Mr. Russell mean that the physical object causes both the "sense-datum" and the "sensation" or is it the cause of the sense-datum only? From numerous passages, I should gather that Mr. Russell would answer that it is the cause of both. For example, he speaks (p. 35) of real objects, "whose action on us causes our sensations". So again (p. 45), after saying that light is "something caused by the action of certain waves upon the eyes and nerves and brain of the person who sees the light," he talks of the waves as "the physical cause of our sensations of light". It is not, of course, impossible that one and the same cause may give rise to two separate and distinct effects, that, for instance, the stimulus, acting on "the eyes and nerves and brain" of a person, may first occasion the sense-datum which we call a brown colour, and then, acting on the mind of the said person, may produce the sensation, or act of apprehension, in and through which there is awareness of the brown colour. Only, in that case, it is important to recognise that the two operations *are* quite separate and distinct. And the question will have to be faced,—How is the sense-datum related to the sensation? The sense-datum is not itself the cause, as has sometimes been assumed, of the act by which it is apprehended. How, then, is it related to that act? Mr. Russell presumably would reply, it is related as the object known to the process of knowing. Very well; but if a mental act can stand in immediate relation to a sense-datum other than itself, and existing apart from itself, why is it disqualified for standing in a similar relation of immediacy to the physical thing? In reference to both the same claim might be made. Neither is "in" the mind; each stands "before" the mind in the position of an object (*cf.* p. 67). What is it that renders possible immediacy of relationship in the one case and precludes it in the other? Why should an object that comes about as an effect of an operation on the sense-organs be placed in an advantage, so far as knowability is concerned, to an object that exists independently of such operation? Mr. Russell has deprived himself from having recourse to the argument based on the "given" character of the sense-datum. So far as the act of

apprehending is concerned, the sense-datum is "given" in no way in which the real object is not "given". And it would be difficult, I imagine, to discover any other factor to account for the significant difference in question. All, apparently, that could be said would be that the difference is there, and has simply to be accepted.

In view of the consideration just dwelt upon, I do not see how the contention that our knowledge of sense-data is infallible and possesses immunity from error can for one moment be sustained. It is true that when there is *awareness* of a sense-quality there cannot in and through the same act of awareness be doubt of that *awareness*. But the immunity from doubt appertains to the awareness, not to the object of which there is awareness. If the sense-datum exists as an effect of something upon the sense-organs, there is no guarantee whatsoever that it will be apprehended in and through the act of sensation precisely as it exists in *rerum natura*. In short, there is no *a priori* reason why this appearance should appear precisely as it is. In point of fact, there is very strong reason for saying that, according to Mr. Russell's account, the sense-datum appears very different from what it is. For admittedly, as apprehended, the sense-data appear to be properties or qualities of the real object, whereas, according to the theory, they are nothing of the kind. What we are immediately aware of is really an *effect* due to an operation upon the sense-organs; what we seem to be immediately aware of is a property or quality of the assumed *cause*. Sensation, therefore, would appear to be under the ban of a perpetual hallucination. And Mr. Russell makes no serious attempt to explain how this extraordinary hallucination comes about. Apparently, he would account for it as an inference—an erroneous inference—on the part of the subject. But if it be an inference, it is certainly an unconscious inference. No sensuously apprehending mind is aware of going through a process of inference in such a case. And in reference to that, I think we are entitled to ask two things. In the first place, assuming it to be an inference, we need to be told on what grounds the unconscious inference comes to be made, and why the result of such inference should seem to us to be not mediately but immediately known. In the second place, we need to be told why we should assume it to be the result of an inference at all, seeing that, *ex hypothesi*, our only criterion of immediateness is what we seem directly to apprehend, and that, according to that criterion, the awareness of the sense-datum as a *quality of the real object* is no less immediate than the awareness of the nature of the sense-datum itself.

I turn lastly to what seems to me to be the root error of the theory I have been criticising. The distinction between the act of apprehension and the sense quality apprehended, between what Mr. Russell calls the "sensation" and the "sense-datum," seems to me a perfectly legitimate and an important distinction. But we are not, I think, entitled to take that distinction as indicating three

separate and independent existences. The sense-datum as a content of the act of sensation is not a *tertium quid* between the real thing and the mind; it is that which in and through the act of sensation is apprehended of the real thing. In other words, I submit that Mr. Russell has shown no ground for the contention that the sense quality comes into existence through the operation of the physical object upon the organs of sense. That would imply, were it a fact, that the organs of sense instead of being instruments for acquiring knowledge of the real world were, on the contrary, instruments that stood in the way of acquiring such knowledge, and in truth rendered such knowledge for ever impossible. No instinctive belief is so strong as the belief that by means of the sense organs we do attain knowledge of real things, and according to Mr. Russell's own canon (p. 39) the most conclusive reasons would be needed for holding that belief to be false. No such reasons have been presented. All that the facts adduced warrant us in saying is that the *acts of sensation* arise in consequence of the stimulation of the sense-organ; they do not warrant us in saying that the *qualities apprehended* arise in like manner in consequence of such stimulation. Or, to bring out the issue in yet another way, I should dispute the legitimacy of the distinction, as Mr. Russell draws it, between what he calls "knowledge by acquaintance" and "knowledge by description". "We have *acquaintance* with anything," he tells us, "of which we are directly aware, without the intermediary of any process of inference or any knowledge of truths. Thus in the presence of my table I am acquainted with the sense-data that make up the appearance of my table—its colour, shape, hardness, smoothness, etc." On the other hand, "the particular shade of colour that I am seeing may have many things said about it—I may say that it is brown, that it is rather dark, and so on". Such knowledge is knowledge by *description*. Through it I may know truths *about* the colour, but I do not know the colour itself any better than I did before (p. 73). It is difficult in a few words to make quite clear the confusion which I believe to be here involved. I do not question that we may have direct and immediate knowledge of facts, in which little or no inference seems to be involved, although I should say that what is thus direct and immediate for the mature mind may not, and certainly would not, have been so for the rudimentary mind. I do not question either that a fundamental distinction is to be drawn between "a thing" and "the truths about a thing," although I do not think this distinction is forthwith to be translated into the form "knowledge of the thing" and "knowledge of the truths about the thing". I do not question once more the importance of distinguishing between what *exists*, meaning by *existence* occupying a position in time, and what *subsists* or *has being*, where being is opposed to "existence" as being timeless, but so far as concerns what falls under the one head or the other, I cannot accept Mr. Russell's line of demarcation. We are considering at present sense-data, and

I confine attention to them. "There is," says Mr. Russell, "no state of mind in which we are directly aware of the table; all our knowledge of the table is really knowledge of *truths*, and the actual thing which is the table is not, strictly speaking, known to us at all." Our knowledge of the table, such as it is, is obtained through acquaintance with the sense-data that make up the appearance of the table; we *describe* the table by means of the sense-data (pp. 74 and 75). Now, if what I have been urging with reference to appearance be granted, we are entitled, on the contrary, to say that there are states of mind in which we are directly aware of the table, and that though we may proceed to *describe* the table by means of the sense-data, this does not mean that there was first awareness of the sense-data as distinct from the table, and that our ascription of them later to the latter is only an illegitimate inference on our part. The truth would rather be the following. Our direct, immediate awareness is originally a comparatively confused and indistinct awareness of the real thing. By degrees we come to discriminate the various sense qualities of a thing from one another, and from the thing. We may then, by abstraction of our own, hold, so to speak, one quality before the mind apart from the others. We may, for example, single out the brown colour of the table, and disregard its hardness. But when we do this, we are not entitled to ascribe *existence* to the brown colour, as thus separated and abstracted from the real object of which it is a quality. We can then only say of it, just what Mr. Russell says of universals, that it subsists or has being, as contrasted with existence. And I think for precisely the same reason which he gives for refusing to speak of universals as existing. The brown colour, as thus separated and abstracted from the real object of which it is a quality, as thus held apart in the act of awareness, is independent of time and change, is, in other words, timeless. Equally with a universal, it may be said to have perpetual, rigid, and unchangeable being. Nothing can alter it, for the simple reason that it is not an existing fact to be operated upon, acted on, or affected in any way.¹ Undoubtedly the act of apprehending it is dependent upon temporal conditions and is in time, and so, too, of course, for the matter of that, is the act of thought, by which a universal is apprehended. But the abstracted brown colour differs not at all, as regards timelessness, from the universal. That is to say, knowledge is all of one piece, and if we distinguish knowledge from what is known, we are not entitled to cut the former in two with a hatchet, denoting some of its contents as temporal and others as timeless.

Yet a further consideration may assist in rendering my meaning clear. Mr. Russell insists upon instituting a very sharp and pronounced antithesis between what he calls "perception" and "judg-

¹ Cf. Lotze, *Metaphysik*, § 24.—"The predicates of things are unchangeable. They vary indeed in their applicability to things, but each of them remains eternally the same with itself. It is only the things that change, as they admit of and reject now one predicate, now another."

ment". If, for example, we first apprehend the sun shining, we are said to perceive directly this complex fact. If, however, we pass from such "given complex fact" to the judgment "the sun is shining," we have had, it is contended, to perform an act of analysis; we have had to separate out "the sun" and "shining" as constituents of the fact. And in this process of analysis it is possible that an error may be committed; we cannot be deceived in the perception of the complex fact "the sun shining," but we may be deceived in forming the judgment that "the sun is shining". And the difference is due to the presence of analysis in the latter case and its absence in the former (p. 214). I cannot admit that the distinction, as thus drawn, is well grounded. Perception of such a complex fact as the sun shining would be clearly and obviously, I should say, impossible without a process of discrimination, involving analysis the same in kind as, though no doubt differing in specific ways from, the analysis involved in making the judgment "the sun is shining". The shining sun is selected from a large mass of other sense-data, and distinguished from them, and were it not so distinguished there could be no such perception of it as is here assumed. It is not given simply as a detached, separate, isolated whole; as a fact of perception, it has had, in and through the act of awareness, to be detached and separated. I should go further and maintain that not even the crudest apprehension of a sense-datum can be accounted for as a phase of mind except it be viewed as a process of discriminating and comparing,—a process which, whilst differing, of course, vastly in degree of completeness from those acts which we specifically describe as acts of comparing and relating, as judgments, is yet in kind identical with them. What Mr. Russell calls perception is, that is to say, from the beginning in essence an act of judgment, although no doubt the term judgment, as ordinarily understood, indicates far too developed a form of the one common process to be rashly employed in speaking of the earlier and more rudimentary stages.

G. DAWES HICKS.

EULER'S CIRCLES AND ADJACENT SPACE.


"It might well seem that the task of representing by a diagram the mental act of judgment, necessarily involved an impossibility. Take, for instance, a simple proposition such as 'The orange is round'. How, it may be asked, can there be any *material* representation of so essentially a *psychical* act as the abstraction of 'roundness' from the concrete object? Or how can any *figure* express a universal concept?" (Joyce, *Principles of Logic*, p. 77. *Italics mine*).

Euler's diagrams involve the assumption that the relations of terms may be adequately represented by their extension alone as presented to the eye by lines and spaces on a flat field. A bold assumption! Flat spaces constitute a very inadequate presentment of the intricate relations of logical terms, each of which is rounded up into a subtle complex of qualities as well as quantity. However, if we limit ourselves to the inside of the simplest diagrams, as Euler himself did, the method has some merit, though it tends to foster mechanical habits of mind. It becomes distinctly mischievous if we proceed to annex the space around the circles and draw conclusions on the assumption that the contradictory of the term in the circle is identical with outside space in its extent and in its relations to other terms and their contradictories. Modern logicians are too prone to indulge this vicious mechanical habit of confusing logical relations with space relations. That outside space is an untamed jungle full of logical pitfalls. Conclusions drawn from it are worthless, unless independently confirmed. The soundness of this contention is best shown by a careful examination of the several forms of inference by inversion as related to Euler's circles.

Logicians differ as to the representation of propositions, I, for instance, varying from one figure to four figures. Joyce, who, in spite of difficulties so strongly expressed in the quotation above, considers diagrams "in many respects helpful," gives one figure for E and two for each of the other propositions. For our present purpose it will be convenient to follow him.

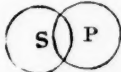

Accepting at present, for the sake of argument, the assumption that conclusions may be read off from the space outside of the circles, let us see how many inverses we can get by this method.

An E proposition, No S is P, is represented by Fig. 1,

 On the fundamental assumption provisionally admitted, \bar{S} , i.e., the space outside the circle on the left, co-incides in part with P and in part with \bar{P} . Hence we may read off at a glance two inverses, $\bar{S}iP$ and $\bar{S}i\bar{P}$. The second of these, Some \bar{S} is P, may just as well be read Some \bar{S} is not P; and the first, Some S is \bar{P} , may also be read Some S is not P. E then yields four inverses, $\bar{S}iP$, $\bar{S}i\bar{P}$, $S o P$, and $S o \bar{P}$.

A is represented by Fig. 2, , and Fig. 3, . In

Fig. 3, as in Fig. 1, \bar{S} co-incides in part with both P and \bar{P} . Hence we read off the same four inverses as from E. Fig. 2 yields two more, $\bar{S}aP$ and $\bar{S}eP$, since the spaces outside of two co-inciding circles also co-incide. Thus we have in all six inverses of A, $\bar{S}iP$, $\bar{S}i\bar{P}$, $\bar{S}oP$, $\bar{S}o\bar{P}$, $\bar{S}aP$, and $\bar{S}eP$. The subalterns, $\bar{S}i\bar{P}$ and $\bar{S}oP$, may also be read off from Fig. 2, but since they are already in the list as read off from Fig. 3 they are not repeated.

O is represented by Fig. 4, , and Fig. 5, .

(For one meaning of *Some*, Fig. 1 also may represent O. Since it gives the same inverses as Fig. 4, it is not required here.) From Fig. 4, as from Figs. 1 and 3, we read off for O the same four inverses as the first four for E and A. From Fig. 5, since all of the space outside of S is also outside of P, we read off $\bar{S}aP$ and $\bar{S}eP$. Again, as in the case of A, the subalterns are not counted. O yields in all six inverses, the same as the six derived from A, viz.: $\bar{S}iP$, $\bar{S}i\bar{P}$, $\bar{S}oP$, $\bar{S}o\bar{P}$, $\bar{S}aP$, and $\bar{S}eP$.

I is represented by Figs. 4 and 5, the same as O, and yields the same six inverses. Two more figures for I are sometimes added, but these add nothing to the list of inverses.

The following table exhibits our results in a compact form:—

Inverses Read Off from the Outside of Euler's Circles.

From A	$\bar{S}iP$, $\bar{S}i\bar{P}$, $\bar{S}oP$, $\bar{S}o\bar{P}$, $\bar{S}aP$, $\bar{S}eP$	6
„ E	$\bar{S}iP$, $\bar{S}i\bar{P}$, $\bar{S}oP$, $\bar{S}o\bar{P}$	4
„ I	$\bar{S}iP$, $\bar{S}i\bar{P}$, $\bar{S}oP$, $\bar{S}o\bar{P}$, $\bar{S}aP$, $\bar{S}eP$	6
„ O	$\bar{S}iP$, $\bar{S}i\bar{P}$, $\bar{S}oP$, $\bar{S}o\bar{P}$, $\bar{S}aP$, $\bar{S}eP$	6
Total	- - - -	22

These are all properly reckoned as distinct. Inverses having the same formula but derived from different propositions, are very far from being identical inferences. $\bar{S} o P$ as inferred from A, for instance, is wholly different, as regards the reasoning involved and its claim to validity, from $\bar{S} o P$ as derived from O. Inversionists accept the former and reject the latter. $\bar{S} o P$ from E, or from I, in like manner, differs from the same conclusion from A or O. $\bar{S} o P$ must therefore be counted in each line, or as often as it appears in the table. Every line of the table makes its separate contribution to the total, notwithstanding identity of formulas in vertical columns. The total is startling—22 distinct inverses! The text-books give only four. But from Euler's circles they rattle out like dry peas from the pod. Particular propositions are especially prolific.

Are they all valid? Not one. \bar{S} is an illicit minor term. Its content is not represented at all in the premiss, be that either A, E, I or O. Ordinary illicit process infers the whole when only a part is given. The content of the illicit term is present in the premiss, though not in full measure. How much more gross is the illicit process of inversion! It admits in the conclusion a term of which not even a part is contained in the premiss. Inversionists seem to regard S and \bar{S} as if they were tied together by some magic bond by virtue of which one may be inferred from the other. As a matter of fact they are wider apart than A and Z. The latter are merely different; the former are contradictory. As subject-matter of discourse S and \bar{S} have absolutely nothing in common. If A is in the premiss do we therefore proceed to write Z in the conclusion? We might do so more reasonably than to infer \bar{S} from S. The original subject, S, in the inference $S a P \therefore \bar{S} o P$, sounds the keynote of the argument, and when you say \bar{S} in the conclusion you bring in discord. You are talking about something else, singing out of tune. Changing subjects breaks the bond of inference. It vitiates the eduction series, $S e P \therefore P e S \therefore P a \bar{S} \therefore \bar{S} i P$, which is the mainstay of inversion. The whole series harks back to the original subject, S, and the new subject in the final term, $\bar{S} i P$, brings in alien matter of discourse. It is therefore illicit as related to the first term, $S e P$, notwithstanding the fact that it would follow properly from $P a \bar{S}$ if that were an independent proposition instead of standing in a series beginning with $S e P$. The *predicate-term* may be safely negated in obversion if we change the quality of the proposition, but negating the *subject* throws the whole inference out of gear so completely that changing the quality gives only a specious illusion of restoring the balance.¹ A series of

¹ The predicate is dual (copula + predicate-term) and changing one part is balanced by changing the other. But the subject being single, any change in it is unbalanced.

alternating obversions and conversions is valid only so long as the integrity of the original subject is preserved. Negating the original subject severs the inferential tie between the first member of the series and the last member. If the original subject is S , then \bar{S} brought into the series as a new subject, is a mischievous intruder. Hence every possible inverse is illicit. Be there one, or four, or one hundred, every inference from S to \bar{S} is a fallacy.

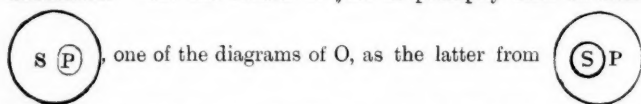
Even the most ardent advocate of inversion is not willing to stand sponsor for more than four of the twenty-two inverses given above. He admits a partial and a full inverse of A , $\bar{S} o P$ and $\bar{S} i P$; also a partial and a full inverse of E , $\bar{S} i P$ and $\bar{S} o P$. Fourteen slaughtered innocents lie at the door of his definition, since it requires depressed quantity as one mark of a true inverse. This cuts off at one fell stroke the whole batch of inverses from particulars, because I and O are already depressed; and two, $\bar{S} a P$ and $\bar{S} e P$, from A , because the inverse itself must not be universal. Eighteen of the twenty-two inverses are thus disposed of on the inversionist's own principles, 14 rejected and four accepted. Just what he would do with the remaining four, *viz.*, $\bar{S} i P$ and $\bar{S} o P$ from A ; also $\bar{S} o P$ and $\bar{S} i P$ from E , I will not presume to say. Possibly they are putative offspring whom he has never met fairly face to face, and now that I have introduced these waifs he may adopt them. I may be unwittingly enlarging the scope of immediate inference by inversion. He is welcome to them. Some of them are as good, nay better (if one fallacy can be better than another) than those he now recognises. For instance, compare these two inverses from E : (a) No mathematician can prove that $2 + 2 = 5$; therefore some one who is not a mathematician can prove that $2 + 2 = 5$. (b) No mathematician can prove that $2 + 2 = 5$; therefore one who is not a mathematician *can not* prove that $2 + 2 = 5$. Most people, I think, would be simple enough to prefer the second because it is true. Vainly would the inversionist exhort them to prefer (a) because it is the regular inverse of E , $\bar{S} i P$, while (b) is unauthorised. It is $\bar{S} o P$, a "poor relation" of E , though quite at home with A . But let us see how it behaves with A for its invertend in a concrete example, and compare it with an unauthorised inverse of A , $\bar{S} i P$: (a) All dogs bark, therefore something that is not a dog does not bark. (b) All dogs bark, therefore something that is not a dog barks. Both are alike silly, and both alike illicit. We hesitate to say that one is just as *good* as the other, for both are bad. This example serves well to illustrate the point that \bar{S} is always an unbalanced negative and therefore always illicit. It makes not a particle of difference whether the conclusion is negative (a) or affirmative (b). Dogs bark, therefore not-dogs (foxes for instance) $\left\{ \begin{array}{l} \text{bark} \\ \text{do not bark} \end{array} \right\}$. No matter which predicate we choose.

The change of subjects kills the inference in any case, and the double negative is absolutely impotent in the way of restoring the balance.

Even of the despised inverses from I and O something may be said. If they are more naughty and disreputable than the four "favourite sons," they are, at any rate, not much worse. Take, for instance, $\bar{S} o P$ from I: Some animals bite, therefore some things which are not animals do not bite. This is perfectly true, and not a whit more absurd than, No man can be both white and black, therefore some one who is not a man can be both white and black. The latter is the duly christened and fondly cherished $\bar{S} i P$ from E. In this case the favourite son is actually put to shame by the neglected waif. If the inversionist means to be stubborn in his creed I am really afraid he will in the end be obliged, as a matter of consistency, to take in the whole ragged family of inverses.

Euler's circles prove too much. They cheapen inversion, make it so easy and common as to bring it into contempt. Whether the Eulerian method does not at the same time condemn itself is a pertinent question. Let us recapitulate some of the astonishing consequences of the inversionist assumption that contradictories are identical with outside space.

1. This method is indiscriminate. The inversionist's pets get no favours from it, though it is based upon his own assumption. The spurious forms from I and O, and those unacknowledged ones from A and E, are read off just as easily as the four which are reckoned legitimate. But aside from inversionist favouritism, there are real differences. $\bar{S} a \bar{P}$ from O, for instance, a universal affirmative conclusion from a particular negative premiss, is surely less reasonable than $\bar{S} i P$ from A, a particular affirmative from a universal affirmative. Yet the former is just as promptly read off from



one of the diagrams of A. Glancing down the vertical columns of the table of inverses, we see the same conclusion from different premisses. This method is indiscriminate as to the data of its conclusions as well as to their relative merits.

2. This method gives contradictory results. From the same premiss $S a P$, we obtain both I and its contradictory, E, *i.e.* $\bar{S} i P$ and $\bar{S} e P$; also $\bar{S} o P$ and its contradictory $S a P$. This, however, occurs only on condition that more than one diagram is used for a single proposition. In the case of E, with its single diagram this inconsistency does not appear. The too prolific results of this method, however, give fine opportunities for inconsistency. Drawing six distinct conclusions from a single premiss is suspi-

cious, as is also drawing the same conclusion from four different premisses.

3. This method is very hospitable to fallacies. No less than twenty-two of them are at home in that "untamed jungle" surrounding the circles. Even after the inversionist has rescued his four pets (if he ever can wash them clean of the taint of illicit process) on his own principles eighteen fallacies are still at large—eighteen inversion-fallacies at least, and how many more belonging to other kinds of inference we know not.

The difficulties of diagrammatic methods in Logic are certainly very great; perhaps they are insurmountable. Very simple diagrams simply interpreted in harmony with their direct and obvious meaning as it appears at the first glance, are the only useful ones, and their utility is very limited. Anything beyond this severe simplicity is open to two objections: (1) The figures, by reason of their complexity, exhaust mental energy in the effort to comprehend them, leaving no room in the mind of the student for the real logical principles intended to be illustrated; so that the diagrams hinder rather than help. (2) Modern refinements of the Eulerian method, especially its extension into adjacent space to represent contradictories, suggest a far greater and more insidious evil. Diagrams may not only blind us to fallacies already latent in our reasoning, but may also become fertile fields for fresh fallacies.

L. E. HICKS.

VI.—CRITICAL NOTICES.

The Principle of Individuality and Value: the Gifford Lectures for 1911. Delivered in Edinburgh University by B. BOSANQUET, LL.D., D.C.L., F.B.A. London: Macmillan & Co., 1912. Pp. xxxvii, 409.

IT is somewhat difficult to criticise this most brilliant work. To discuss the main principle on which it is based would scarcely be adequate, since in that principle there is nothing new. On the other hand, to describe and criticise the original and interesting applications of that principle would take an entire number of *MIND*. A brief exposition of the chief thesis of each lecture, and a few comments on it, seem to offer the best compromise, though one which is scarcely adequate.

The main principle of the book may perhaps be stated in the words of the Preface: "The things which are most important in man's experience are also the things which are most certain to his thought. And . . . this is not an accident but inevitable because importance and reality are sides of the same characteristic." Dr. Bosanquet not only realises that this view has been stated before, but maintains that we may start by considering it proved. "Indeed, I do not conceal my belief that in the main the work has been done, and that what is now needed is to recall and concentrate the modern mind out of its distraction rather than to invent wholly new theoretical conceptions."

With this I feel myself unable to agree. I cannot think that we have as yet arrived at any general theory of the nature of reality which can be taken as proved. Even if it is the case, as I believe it will turn out to be, that some form of idealism is true, it seems certain that it is not any form of idealism which has yet been put forward. The criticisms of opponents may be in many respects mistaken, but in some instances they have certainly disclosed defects which will require fundamental modifications. And more pressing, perhaps, than the criticisms of opponents, are the difficulties which arise when we look at the systems from within. The invention of "new theoretical conceptions" is, I submit, exactly what is most required in the philosophy of the present day. *Wholly* new, of course, they could not be, and need not be.

The phrase already quoted—"importance and reality are sides of the same characteristic"—may perhaps be taken as the key-note

of the book. By importance Dr. Bosanquet means, I take it, what is sometimes called positive value. And the whole structure of his argument seems to depend on this view—that the real is the important, and the important is the real. It is not quite clear to me whether this connexion of importance and value is held to be analytic or synthetic. I suppose, indeed, that Dr. Bosanquet might regard the antithesis as unjustifiable. But at any rate it seems clear that the connexion is direct. It is not that the real has the qualities X, Y, and Z, and that whatever has the qualities X, Y, and Z, is important. There is no need of any such middle term. The real as such is the important, and the important as such is the real—a conclusion which, if true, is certainly most desirable.

The first lecture is entitled "Introduction—the Central Experiences". "We begin then with the principle—the truism if you like—that in our attitude to experience, or through experience to our world, we are to put the central things in the centre, to respect the claims of the obvious which is neglected—to take for our standard what man recognises as value when his life is fullest and his soul at the highest stretch" (p. 3). Our standard of what? If of value, the standard might be satisfactory if we were supplied with another standard by which we could recognise when our lives are fullest. But Dr. Bosanquet means, I think, more than this. He is recurring, I suppose, to the principle mentioned in the preface, and the standard is one by which we are to judge of reality. And then, I submit, he is most certainly wrong in calling it a truism. It may be true, but it is not generally admitted, and it is not self-evident. If we are to have a right to believe it, it will have to be proved, and, if it were proved, it would disprove most of the philosophy of the past. Such things are not truisms.

Indeed Dr. Bosanquet seems inclined everywhere to underrate the differences of opinion which are to be found in the world. He says, for example: "We shall, on the whole, express and define, I believe, the reasonable faith of resolute and open-minded men" (p. 30). But is there at present any faith common to resolute and open-minded men, or is there any sign of such a common faith in the future? Surely resolute and open-minded men are found in disagreement on every question which has ever been raised in philosophy.

The only other point I have time to notice in this lecture is the protest against "the attempt to take any form of immediateness, understood as excluding mediation, for an absolute and reliable datum, whether in the form of an object of simple apprehension, called by the name of fact, or in the form of an indeterminate creative impulse called by the name of life, or in the form of a subject of experience, impervious and isolated, called by the name of self" (p. 15). The last clause would seem only to protest against Leibniz's Monadism, for no other thinker of importance has regarded selves as isolated. But Dr. Bosanquet is always inclined to hold

that if anything is asserted to be ultimately real, or if the existence of anything is asserted to be immediately certain, the reality in question is asserted to be "impervious and isolated". And in holding this it seems to me that he often fails to do justice to the position of his opponents.

Lecture II. deals with "The Concrete Universal". And it is the most important lecture in the book, since it is here that Dr. Bosanquet defines what he means by Individuality. He begins with an attack on the significance and importance of abstract generalisation. The concrete universal is contrasted with this. The concrete universal is the nature of a system which may be called, we are told, an organism, but for which Dr. Bosanquet uses by preference the name of a world. "A world or cosmos is a system of members, such that every member, being *ex hypothesi* distinct, nevertheless contributes to the unity of the whole in virtue of the peculiarities which constitute its distinctness" (p. 37). He goes on to say that here "a systematic identity subordinates diversity to itself, or, more truly, reveals itself as the spirit of communion and totality, within which identity and difference are distinguishable but inseparable points of view" (p. 46). These two accounts are apparently given as mutually equivalent, but it seems to me that the second goes a good deal farther than the first.

We are told that "the true embodiment of the logical universal takes the shape of a world whose members are worlds," because "The Universal in the form of a world refers to diversity of content within every member" (p. 37). The inevitable conclusion from this would seem to be that the members of every world are worlds, and that therefore the series of worlds within worlds is endless. Dr. Bosanquet, however, in a very interesting note, regards the absolute reality of such series as unnecessary and improbable. How this can be reconciled with the statement in the text, I am quite unable to see.

That general laws are inadequate as an explanation of the universe without the further conception of systems whose parts mutually determine each other may be admitted, and Dr. Bosanquet's contention that the latter conception is the higher—a view which was also Hegel's—has much to recommend it. But I think that the author goes too far when he maintains, as I understand him to do, that by means of the conception of such systems we can transcend general laws altogether. He would, I suppose, take England to be such a system. But this does not enable us to transcend such general laws as "no Englishman is a slave," "the members of the House of Commons are elected," "every English child has a right to free education". They remain absolutely true, and if they, and similar general laws, were not true, England would not be what it is.

Nor does it seem to me that Dr. Bosanquet has sufficiently considered what the nature of the unity in such a concrete universal would be. The nature of such a universal—as Kant pointed out,

and as Dr. Bosanquet, if I understand him rightly, recognises—cannot be expressed separately in the words. We can only say that it is the aspect of unity which is manifested in just those parts in just those relations. But the difficulty which I must confess that I feel is whether, when we say that half a dozen things are conceived by a concrete universal, or form an organic unity, we are saying much more than that they are half a dozen things in the same universe. Dr. Bosanquet appeals to the unities of art, but it is just here that the difficulty lies. If a gasometer were substituted for the tower of Salisbury Cathedral, the new building would be a different unity from the old one, and a much less beautiful unity. It would, I imagine, be, as a matter of empirical fact, much less in harmony with the desires of most of the people who see it, and—partly on this account and partly on others—the change would diminish the total amount of good in the world. But I cannot see that the new building would be less of a unity, more self-contradictory, or less real.¹

The greater part of the Lecture is occupied with a discussion of the principle—so fundamental in Dr. Bosanquet's philosophy—that "truth is the whole". The question is too large for discussion here, and the author's arguments go along familiar lines. But we must notice his view that "we can and do stake" our whole belief in reality "on the general trueness and being of whole provinces of advanced experience, such as religion, or morality, or the world of beauty and of science. And these are a higher and deeper evidence of the being and motive of the real than are the formally undeniable judgments, undeniable because implying only the minimum of experience, to which the abstract shape of the principle of non-contradiction belongs" (p. 50). Whether the contention is sound or not—I am inclined to think that it is not—the arguments given in favour of it are of high importance, and deserve very careful consideration.

Thus we reach the idea of Individuality—"that which has nothing without to set against it, and which is pure self-maintenance within" (p. 68). Thus the Individual is a "world," but a "world" is not always an Individual. For, as Dr. Bosanquet points out, there can be no real Individual, by his definition, except the Absolute, while parts of the Absolute are also worlds.

I have only time to cite one more remark from this chapter: "There has been far too great a tendency to state the essence of Individuality not as the being oneself, but as the not being some one else" (p. 69). This seems to me profoundly true, and very important, though I am unable to agree with the author as to the

¹ I do not maintain that this is the truest view we can take of the universe. On the contrary I think that Organic Unity is an inadequate category—a view for which I can at any rate plead the authority of Hegel, however unpopular it may be among Hegelians.

precise sort of "being oneself" which deserves the name of Individuality.

In the Third Lecture the author maintains that uniformity and general law are not antagonistic to individuality. He discusses the views of Dr. Ward, Dr. Royce, Prof. Taylor, and M. Bergson. The first part of the lecture is occupied with argument on the nature of physical and psychical statistics, which would require special knowledge of a high order to criticise, or even to summarise. From this Dr. Bosanquet passes to the conception of the Uniformity of Nature, in the sense in which it is assumed by science. He points out that this principle does not in the least assert that the future will repeat or resemble the past (p. 92). It seems extraordinary that this point should ever have been misunderstood. It seems so obvious that such a law of progress, for example, as Leibniz asserts to be true of all spirits in heaven, would, just because of its absolute uniformity, render it quite impossible that the future should repeat or resemble the past. But the mistake has been made, and it was necessary that it should be pointed out. The particular form in which Dr. Bosanquet puts his refutation depends on his theory of the concrete universal, but the essence of what he says on this question does not depend on the acceptance of this particular form.

The result thus gained is then applied. "The important point is to disown the idea that the establishment of great *de facto* variety rather disproves true Uniformity (Relevancy) or proves a psychical nature. . . . Such an idea sets us wrong *ab initio* in our attitude to the characteristics of consciousness, teaching us to connect it with eccentricity and caprice—the negation of coherent system—instead of with system and rationality. The same fundamental error identifies the spontaneity of life with an unmotivated diversity, and intelligence proper with an impotent identity" (p. 94).

The Lecture then goes on to show that Individuality is not incompatible with the validity of general laws. The validity of general laws under any circumstances, however, is only admitted under restrictions which arise from the position taken up in Lecture II. They are not as truly universal as the relation of the parts of an organic unity (p. 106) and the "approximate repetitions" which they express are "an imperfection" (p. 120).

The Fourth Lecture deals with the Teleology of Finite Consciousness. The author maintains that "teleology is a conception which loses its distinctive meaning as we deepen its philosophical interpretation" (p. 123), and again: that "every purpose, no doubt, implies a subjective value, but there is no reason why every true value should be a purpose" (p. 127). In the later part of the lecture he argues—as it seems to me with complete success—that we cannot suppose that conscious purposes would ever produce an ordered universe if it had to act on material which, apart from those purposes, was real and yet "a directionless material"

(p. 134). And again he maintains that inorganic nature is no less suggestive of teleology than organic nature—in the sense in which teleology can be maintained at all.

Incidentally we may notice Dr. Bosanquet's denial that man is more important than other creatures or the future than the past. "It is obvious that no such ascription of ultimate value to a particular class of creatures nor to a particular moment in time can be justified as an ultimate conception" (p. 126). As to the first, if it is only meant that the value of men is no more ultimate than that of angels, monkeys, and other conscious beings, it might well be admitted. But I imagine that Dr. Bosanquet means to go farther, and to deny that ultimate value can be attributed to anything in the universe short of the universe itself. In that case I must confess that his proposition so far from seeming to me to be obviously true, seems to me to be obviously false. It appears to me self-evident that every conscious self has ultimate value, and that nothing which is not a conscious self—whether the universe or a part of the universe—has any ultimate value.

On the question of time the point seems more obscure, and I only wish to protest against Dr. Bosanquet's description of his solution as obvious. On page 136 he says that "the great enemy of all sane idealism is the notion that the ideal belongs to the future". Of course if time is an inadequate way of looking at reality the ideal cannot be really in the future. But the possibility remains that it may be much more truly in the future than in the past or present, and that it may be as truly in the future as to-morrow's breakfast is. And whether this possibility is or is not actual appears to me absolutely vital with regard to the values of our lives.

On page 130 will be found a discussion of the relation of desire and satiety to enjoyment. Dr. Bosanquet points out with great clearness that their relation to æsthetic enjoyment is of a very subordinate kind, but holds that the case is different with regard to sensuous pleasures—a distinction for which there seems no tenable defence. The pleasure of a hot bath may be preceded by a desire for it, and will be followed by satiety, if prolonged. The same is true, as Dr. Bosanquet admits, of a visit to a picture gallery. But this, as he points out, leaves it true, about the picture gallery that "it is not the transition towards an unattained terminus that makes the essence of the activity". Neither does it make the essence of our pleasure in the hot bath. Dr. Bosanquet would almost seem to have been touched by Green's curious prejudice against sensuous pleasure, since he opposes æsthetic enjoyment to it as "true fruition".

Lecture V. is entitled "The Bodily Basis of Mind as a Whole of Content". Dr. Bosanquet rejects, as is well known, the Idealisms of Leibniz and Berkeley. His Idealism holds that Matter is as really existent as Mind. This renders his system in effect Dualistic. And we find here a fresh example of the rule that a system

which sets out to be Dualistic has a strong tendency to end as Materialism. Almost every word that Dr. Bosanquet has written about the relations of Mind and Matter in this lecture might have been written by a complete Materialist. For example, on page 200 (the italics are mine, not the author's), "If an idea cannot secure its own adequate realisation, it is 'not ideal enough'. It has not enough conformity with the environment; it does not really contain as much of the secret of coherence or perfection as it professes to contain. *I take it that a glance at the nervous system shows us this incontrovertibly.*" This is perhaps the most striking passage, but the whole of the Lecture is in the same tone.

Of course Dr. Bosanquet's actual position is very far from being materialistic. But his right to call himself an Idealist depends, if I understand him rightly, entirely on his view that the universe is an Individual, and that selves "in a secondary sense" are Individuals. Thus everything turns on two questions. When we say that things are connected by a concrete universal, are we really saying more than the materialist would say when he called them a group or an aggregate? And, if we are saying anything more, is it anything which increases the positive value to be attributed to the object of our statement?

The detail of this Lecture is most interesting, and it is possible to disagree with its main contention and to find oneself in enthusiastic agreement with some of Dr. Bosanquet's criticisms on other writers. I have only time to notice one passage. We are told that "Hegel's 'actual soul' is the perfection of a living body highly trained and definitely habituated" (p. 178). It is true that Hegel says this of the "wirkliche Seele," and "actual soul" is the literal and accepted translation of "wirkliche Seele," though our ordinary use of the word soul makes the translation somewhat misleading. But the view of Spirit to which Hegel gives this name is held by him to be one of the lowest and least adequate ways of describing its true nature. Before we reach a satisfactory account of Spirit this view has to be transcended again and again. We might as well take the category of Pure Quantity as a true description of the Absolute Idea as take Actual Soul as a true description of Spirit. And yet it is thus that Dr. Bosanquet seems to take it, since he tells us it "is not a retrogression from the deepest insight into mind".

In the next Lecture is considered Self-Consciousness as the Clue to the Typical Structure of Reality. In the first place Dr. Bosanquet maintains that Contradiction is not essential to Self-Consciousness. We have an interesting discussion of Contradiction, in which we are told that "if we say what is self-contradictory cannot be actual fact, then we must deny the actuality of our whole normal world which is the field of our knowledge and action" (p. 226). And again "in the life of conscious beings, again, contradiction is a felt experience" (p. 228). In spite of the

authority both of Dr. Bosanquet and of Hegel—who in this case is unquestionably on the same side as Dr. Bosanquet—I venture to maintain that the first of these passages confuses the actual facts with our beliefs about them, and the second confuses a conflict with a contradiction. Now all contradictions may be conflicts, but all conflicts are not, I submit, contradictions.

What is essential to self-consciousness we are told is not Contradiction but Negativity. The principle is that "an element of Reality can find completion only in what is not itself" (p. 234). I do not know if Dr. Bosanquet would permit this to be interpreted "only in relation to what is not itself," or whether we are to take literally his expression that the self must be *in* the other. From the parallel which he draws between satisfaction and self-sacrifice (which latter phrase again he seems to take literally) it would seem that the self has really got to get satisfaction by passing into something not itself, and so being "beyond itself".

On page 239 one notices Dr. Bosanquet's opinions that, *inter alia*, pain and conflict are essential for the manifestation of Reality, and that "if you turn all things into persons the differences which make life interesting would be gone".

Then comes a discussion of evil. Pain, and sin, and evil, do really exist, but "if we knew everything we should see and feel what finiteness, pain, and evil mean, and how they play a part in perfection itself" (p. 241). This seems to me an untenable compromise. It seems impossible to fall back, as I suppose Dr. Bosanquet does, on the view that the evil is transcended in the Absolute. For if the description of anything as evil is transcended, then it is not really evil, and, if this is universal, evil does not exist. And we are told that it does exist. But if anything is really evil, then, either there is something outside the Absolute (a view which Dr. Bosanquet would naturally not accept) or else there really is a real part of the Absolute which is really evil. Since the Absolute is an Individual, the nature of its parts will be determined by the nature of the whole. And how this can be without the nature of the Absolute being, at least, partly evil, I fail to understand. But if it is partly evil, are we entitled to call it perfection?

Lecture VII, which is entitled "Ourselves and the Absolute," is devoted to the support of Dr. Bosanquet's theory of the comparative unreality of the Self. In the first place he points out that the question cannot be settled by any appeal to the *primâ facie* reality of the Self, since it is impossible to think with any coherency on the nature of reality without rejecting much which appears *primâ facie* to be real. "This then is the fundamental nature of the inference to the absolute; the passage from the contradictory and unstable in all experiences alike to the stable and satisfactory" (p. 268). With this view, I imagine, but few philosophers would disagree. But then the question arises—what is contradictory and unstable, what is stable and satisfactory?

Dr. Bosanquet's view is that "individuality, the principle of reality and the consistent whole, takes us on beyond personality in the strict sense, beyond the consciousness of self which is mediated by an opposing not-self, into the region where we go out of the self and into it by the same movement, in the quasi-religion of social unity, in knowledge, art, and in religion proper" (p. 270). This passage is rather ambiguous. Does it mean that it takes us beyond that consciousness of self which is mediated by an *opposing* not-self, but that there is a consciousness of self which is mediated by a not-self which is not opposing? Or does it mean that it takes us beyond any consciousness of self which is mediated by a not-self at all? I suppose it to mean the latter, especially in view of his earlier statement (pp. 248, 249) that, though "the real foundation of self-hood" is "in some way possessed" by the Absolute, yet "contradiction and discrepancy are inevitable in the constitution of the finite self".

This doctrine seems to me quite untenable. Anything finite is inexplicable, and appears contradictory, if you ignore the existence of other things outside to which it is related, and with which it forms a unity. But this does not involve that there is anything untenable in taking the finite thing as absolutely real. There is nothing incompatible in the fact that A is in the relation B to the thing C, the relation E to the thing F, and so on, with the fact that A is a finite thing which, in its finitude and thinghood, is absolutely real. Dr. Bosanquet's argument seems to depend on a confusion of distinctness and isolation. Nothing finite is really isolated. But that need not prevent finite things from being really and ultimately distinct.

And to say that in proportion as the self develops it has to go out of itself seems to me a mere mis-statement. It has, no doubt, to connect itself by more numerous and more important relations with other selves, and with things of other sorts, if any other sort of things exist. But A does not cease to be A because its relations become more numerous and more important.

Nor can I agree with Dr. Bosanquet that in our highest experiences the self-hood of the self becomes less prominent. Our highest experience I take to be love. And in love it is just the particularity of the two selves which is the supreme element. The love is *his* love for *him*—and the he and the him are what makes it itself.

In the Eighth Lecture is discussed Individuality as the Logical Criterion of Value. Dr. Bosanquet first criticises the view that all judgment of value must be themselves ultimate or rest on other judgments of value which are ultimate. He complains that the advocates of this view have not shown enough respect for Plato and Aristotle. "It is impossible not to feel a certain surprise that without any kind of notice or any argument advanced, the leading conceptions of such thinkers should be altogether set aside" (p. 292).

If no view may be put forward in philosophy without an explicit refutation of all previous thinkers on the subject, the process of philosophical argument will be somewhat cumbrous. Are we to blame Dr. Bosanquet because, in his account of the structure of reality, he has set aside without notice the leading conceptions of Geulincx and of Malebranche?

But the arguments of Plato and Aristotle, as given by Dr. Bosanquet, fail, it seems to me, to support him. "The principle of these arguments in a word is this, that positive pleasure and all satisfaction, as distinct from an intensity of feeling which there is reason to suspect of being illusory, depends on the character of logical stability of the whole inherent in the objects of desire, and that what in this sense is more real, that is, more at one with itself and the whole (*e.g.*, free from contradiction), is also the experience in which the mind obtains the more durable and robust satisfaction, and more completely realises itself. This consideration prescribes the nature of the ultimate good or end which is the supreme standard of value. . . . And by this standard any judgment as to ultimate end or value can be criticised or estimated" (p. 298). And again, "we adhere to Plato's conclusion that objects of our likings possess as much of satisfactoriness—which we identify with value—as they possess of reality and trueness" (p. 317).

One step in this argument then is that satisfaction is value, and that nothing else is value. Now if the supporters of this position should be confronted with Kant, who declares that other things have value besides satisfaction, or with Bentham who maintains that nothing but pleasure has value, what would they do? They would not agree with them. But could they argue with them? No argument is given here, nor do I see what argument would be possible. They could, I take it, only affirm that satisfaction, and nothing but satisfaction was value. And thus their argument would after all depend upon an ultimate judgment of value.

Dr. Bosanquet, I venture to think, has misunderstood the position which he is discussing. His arguments (pp. 295-297) seem directed against the view that our immediate experiences, in an uncriticised and unanalysed form, are the supreme ethical criterion. To confuse the immediate with the ultimate would, as he says, be a fatal mistake. But I do not believe that the authors whom he criticises have committed it. Their contention is, I think, that *all* judgments must either be, or rest on, ultimate judgments, and that as the idea of good is simple and unanalysable, all ethical judgments must either be, or rest on, ultimate judgments of which good is one of the terms, in other words, ultimate judgments of value.

Is the universe good or bad? Strictly, we are told, neither. It is above the good. "It is . . . perfection and the standard of all goodness and value. Strictly, you do not value it: you value all else by it. Its value is the unit, and all other values must be adjusted so as to amount to it" (p. 310). This is rather perplexing. "Its

value is the unit," then it has value. And if it has value, we ought surely to value it, *i.e.* to recognise its value, which is the only way in which we can value anything. But we are told that we do not value it. At any rate this is clear, that, according to Dr. Bosanquet, there is no independent standard by which we can measure the value of what exists, no quality of goodness, the possession of which makes the existent good, while its absence makes it not-good. If this view were true, it seems to me that no judgment about the good and bad could possibly be true. But I do not believe that the view is true, I believe that there is a quality of goodness, as there is a quality of sourness, and whoever has the idea of either quality has a standard by which he can judge everything, pronouncing it to be good or not good, sour or not sour. One set of judgments is much more important than the other, but the logical position of both seems exactly the same.¹

Lecture IX. is entitled Freedom and Initiation. In it the author takes up a position which I should be inclined to call determinist, though he himself rejects the name, and prefers to call it determinateness, to distinguish it from that determinism which does not find the explanation of all action in a movement of our progress towards the whole. "The crucial point, then, which separates determinateness from determinism is the distinction between logic and fatality" (p. 340).

The discussion of the asserted indeterminateness of artistic production, and of the true significance of the greater difficulty of prediction in this sphere seems to me quite admirable, although hampered by the author's statement—apparently as a concession to M. Bergson that "prediction means doing a thing before it is done" (p. 331). If a physician predicts that a man will die next week, does he kill him now?

The discussion of the ethical question offers less room for novelty of treatment. Yet the following criticism seems to me as novel as it is brilliant. "What the ordinary advocate of freedom at bottom demands as 'the power to have acted otherwise,' is in the same breath to act and not to act, or, acting, yet not to act. It is to repudiate, not to accept responsibility, that is the qualification of the self by its behaviour. He is offered what he pretends to ask, that his act shall be his and himself; and he runs from his demand the moment he is confronted with its meaning" (p. 343).

¹ In this lecture (p. 308) Dr. Bosanquet remarks "Mr. McTaggart sustains the ultimate reality of separate persons against that of particular moments of time. But if these latter are unreal, the states of consciousness which fill them must be also in the same degree unreal." Not necessarily, I should reply, unreal *in the same degree*. What appears to us as an hour's ride, or an act of self-devotion, is not what it appears to be, since it appears as temporal. But the realities which appear to us thus—and also the fact of the appearance—are non-temporal realities which have value.

The last lecture is entitled "Nature, the Self, and the Absolute". It is, to a considerable extent, a summary of preceding results, and does not call for much separate criticism. Dr. Bosanquet repeats his objections to Pan-Psychism. We may certainly, I think, agree with him that Pan-Psychism has not been proved. There are attempts to prove it in Leibniz, in Lotze, and, as I believe, in Hegel. But none of them can be considered as a solid proof, in the form given to them by their authors, and whether such a proof is ever to be found or not, it cannot be said to have been found yet. But I cannot see that it has ever been disproved, nor can I agree with Dr. Bosanquet's objection (p. 363). "What becomes of the material incidents of life—of our food, our clothes, our country, our own bodies? Is it not obvious that our relation to these things is essential to finite being?" It does not seem at all obvious to me. Whether a self can exist out of relation to substances which are, or appear to be, material, I do not see that we can tell. We have no direct experience of such a state, and our existence *may* depend on such a relation to the material by a law which has not yet been discovered. But in what we *do* know about the universe I fail to see the smallest indication that a self could not exist without being in relation to what was really, or appeared to it to be, material. And as a self in this position could still experience knowledge and error, virtue and sin, love and hate, it need not find its existence either very empty or very uninteresting.

And here I must close a most inadequate comment on a most remarkable achievement. No book, I think, gives so good an account as this does of the brilliant and fascinating school which counts among its members Dr. Caird, Lord Haldane, and Dr. Mackenzie, but of which Dr. Bosanquet is perhaps the central and most typical member.

J. ELLIS McTAGGART.

The Realm of Ends or Pluralism and Theism; the Gifford Lectures delivered in the University of St. Andrews in the years 1907-1910. JAMES WARD. Cambridge, University Press, 1911. Pp. xv, 490.

I do not propose here either to summarise or to subject to elaborate criticism this most worthy sequel to Dr Ward's well-known Aberdeen lectures on *Naturalism and Agnosticism*. It is superfluous to summarise the argument of a book which all who care seriously for philosophy in Great Britain may be expected to study closely, sentence by sentence, for themselves, and elaborate criticism is hardly possible to a reviewer who agrees so thoroughly with all the main positions contended for that his natural impulse is simply to thank God that we have such a philosopher as Dr. Ward among us. At best, I can only offer the reader an impressionist picture of

the effect produced upon myself by a work in which *φιλοσοφία* appears at last in her true native shape with the disfiguring detritus which makes her in so many presentations as unrecognisable as the "old man of the sea," Glaucus, unsparingly purged away.

The first thing which strikes one about the work as a whole is that in it philosophy honestly appears as a gospel, or good tidings, which brings us hope that reason is on the side of those who affirm, not of those who politely, or otherwise, deny or ignore the ideals which are the spiritual meat and drink of "men of good will". Dr. Ward presents us with a most powerful plea for hopeful faith in a genuine God and a genuine life to come; nay more, he finds room in the world for prayer as an actual intercourse with God, and even for something, as he himself notes, not far removed from the Christian doctrines of purgatory, angels, and intercession. Many of us, who are still far from being old, are old enough to realise what a change this means in the temper and whole outlook on life of official philosophy. It means that, unless Dr. Ward can be put to silence, the "polite atheism" of the Spinozistic doctrines which we were taught in our eager youth on the alleged authority of Hegel, as the last word of a triumphant Philosophy which had seen through everything and found mutability and corruption everywhere but in its heartless "Absolute," have gone the way of the Naturalism to which his earlier Gifford lectures gave the *coup de grâce*. We are free again to believe, free to trust what we have felt all along to be our instinctive convictions just in our worthiest and most earnest moments, and free also humbly to admit our human incapability to solve all the questions which the world puts to us. A younger generation, which has never known what it is to be in bondage to the "Absolute" as conceived by Neo-Hegelian philosophy, will perhaps hardly be able to understand how much the deliverance means to those who have had to fight their way out of Egypt. And this is not all. The deliverance which Dr. Ward offers us involves no such desperate feats as the salvation promised us by Prof. James and his followers on the condition of making jettison of logic and stifling the demands of the intellect for a faith which shall be *reasonable* as well as living. We are not called on to explain away truth into practical utility, or to establish a licence for every one to believe or disbelieve just what he pleases. The faith to which Dr. Ward seeks to lead us is simply a natural extension of the practical reason itself, and in sheer logical acumen, in my judgment at least, he has the better of his antagonists in every pass of arms. He gives us a philosophy armed with which we need not be ashamed to render account to the critic of the faith that is in us, and on the strength of which we may call on others not merely to respect our own *Glaubensfreiheit* but to make our belief their own.

Roughly speaking, Dr. Ward's argument may be said to fall into three parts. In the first half of his book, entitled *Pluralism*, he is

concerned first of all to defend the characteristically British view that any philosophy which means to account for living experience as it is must start from the standpoint of Pluralism. We have to begin with the common-sense view of the world, the view we all take when we are not purposely inventing a metaphysical theory. The world, as it comes to us in this every-day experience, is experienced in action as well as in cognition, as a Many, a system of numerous individuals, related to us and to themselves in all sorts of ways, and of which both action and knowledge postulate that it forms a unity of some kind. But what kind or degree of unity the world exhibits is just the problem that philosophy has to solve; it is a pure *hysteron proteron* to assume, as the philosophers of the "Absolute" do, that the nature and degree of the unity is somehow given to us already in the data with which we have to deal. After an argument to show that if we begin with the One, *i.e.* with a ready-made theory of the kind of unity to be found in the world, we cannot find any road to the Many, and their very appearance as Many is an insoluble mystery, Dr. Ward proceeds to test the value of a pure Pluralism by a sympathetic account of the way in which, on a sound evolutionary theory, a world of originally wholly independent individuals might in the struggle for self-conservation organise itself into something like an orderly whole. Full justice is done, so far as I can see, to the possibilities of such a gradual unification of an original Many. At the same time it is clearly indicated where the limits of such a unification would fall, and how far they would come short of such a fully systematic actual unity as is presupposed in the notion *e.g.* of a moral order, or in the attitude of religion to the world-order, and it is made clear that *if* Theism, *i.e.* the belief in a personal transcendent source of order, can be defended against criticism, Theism would remove just the difficulties which are most formidable to a pure Pluralism. In the second half of the book, which bears the sub-title *Theism*, the alleged scientific objections to Theism as well as the world-old moral difficulties suggested by the "problem of evil" are discussed, and we are then brought face to face with the final difficulty of belief in a true God unaccompanied by belief in a life to come. The supposed objections to the latter are reviewed and found baseless, and we are thus left finally in the position that our moral demands on the world point to the belief in a righteous and loving supreme source of the world, while science and experience have nothing to urge on the other side.

With the main argument, as I have already said, I find myself in such entire accord that I am relieved from the duty of criticism. I can only say "Ditto" to Dr. Ward. It only remains for me to call attention to certain parts of the discussion which strike me as specially noteworthy by their excellence or their timeliness.

The criticism of the doctrine that Reality must necessarily be one single individual, of which all that we call persons or things

are mere "aspects" or "predicates" is, I venture to believe, final. No such doctrine can survive serious handling by a psychologist of Dr. Ward's standing. For, after all, the fallacy in Absolutism is ultimately a psychological one, much of the same kind as that made by the solipsist. The Absolutist first of all forgets that the world, as he experiences it, is not a panorama, but a realm of things on which he acts and which act in turn on him. He mentally puts himself in the position of a single spectator for whose amusement the whole of nature and history is being depicted on a luminous screen, and infers that the shadow-shapes which pass before him are all "determinations" of the screen. Then he goes on to argue that he, the spectator, is, like all that he sees, a passing coloration of the screen, and he finds himself a full-blown believer in the theory of the "One and All". What he has forgotten throughout is that experiences no more experience themselves than the figures on the magic-lantern sheet see themselves. As the shadow-show requires a spectator who is not a figure in the play, so the experienced continuum of objects is only such for an experient. It may be said that the experient *does* experience himself as he does other things. He sees his comrade, but he also sees his own hand or foot. He touches his food, but he can also touch his mouth. This is true, but what is more vital is that he also knows himself in a way in which he knows nothing else. He knows his own conative and emotive life, not by presentation, but by enjoyment, by actually being active as willing or feeling emotion. If he did not, he would not be able to draw any inferences from the external deportment of others to their inner feeling. Some technical distinction is clearly required to express this radical difference between the way in which we know our own "inner life," and the way in which we know nature, and in the main, our fellow-men. I should like, if the usage of language were not so tyrannous, to say that we "experience" our conative and emotive life, but merely "know" external nature. Plato would have said, quite correctly, that we "perceive the latter by the aid of organs with the help of the body," but "perceive the former directly by the soul itself without the intervention of organs". Prof. Alexander's way of putting it is that we "enjoy" ourselves, but merely "contemplate" other things. However we phrase it, it is fatal to Absolutism that our own unity as persons and experients is from the first "perceived without the aid of an organ," "enjoyed," not "contemplated". We only know what it is to be an experient *by* being one, as we only know what anger is by being angry. This fits in well with Dr. Ward's own language when he finds the source of our consciousness of our own unity as experients in Kant's "synthetic unity of apperception," though I confess to finding Kant's phrase a cumbrous and possibly misleading name for a very simple matter.

A second matter of great importance in respect of which I find

Dr. Ward's treatment masterly, is his account of the contingency involved in all actual matter of fact. I mention this along with the criticism of Absolutism because rigid determinism seems to be absolutely necessary in an Absolutist philosophy, and yet morally ridiculous, if not scientifically ridiculous as well. For one thing an Absolutist universe must be, as Prof. James has said, and as Dr. Ward repeats, a "block universe," and there is no room in such a universe for alternatives. For another, there is only one *fā'il-i-haqiq* or "true agent," in such a world, as the Sufis have always taught, and no being less than the Absolute can therefore be really "responsible," since no lesser being is an "efficient cause" behind which you cannot and must not go in your search for the person on whom to throw the "blame," of what happens. If it is ever possible to say "I did it," the meaning must be that "I" am not merely a link in the sequence of disguises of the Absolute, but myself an absolutely individual subject, related to my acts as the Absolute is to its; I must, as Dr. Ward puts it, be a genuine Creator, not a mere channel for the "one spirit's plastic stress". Hence Plato and Aristotle could consistently insist on moral freedom and responsibility precisely because both of them believed in a real contingency, a "wandering cause," a realm of "what can be otherwise". The odd thing about our modern British Hegelians is that though they persuade themselves that they are the true spiritual heirs of Plato, and though they, of course, undertake to show how freedom and determination, like all other antitheses, can be made to vanish in a higher unity, the most distinguished of them regularly come down, when they are discussing practice, on the determinist side of the fence. "Self-determination" is verbally admitted, but the value of the admission is negated by explaining away the "self" into a *product* of anterior "conditions," and "real possibilities" are carefully denied. An exception must be made for T. H. Green, who virtually insists, as Dr. Ward does, on the vast difference between saying that an act is "determined by" the agent and saying that it is "determined for" him, but Green fails to make it clear that this distinction is only possible for a philosophy which denies that a self is a "product of conditions" at all. *I.e.*, to make it, you must either be a radical pluralist with a system of unoriginate selves, interrelated but independent of one another not only as regards their existence, but as regards their *φύσις* or *essentia*, or else a Theist, holding that at any rate the *anima rationalis* in every man is in the fullest sense *created* by God.

As a minor point, I gather from the Appendix that Dr. Ward holds that determinism is a theory which no man could have hit on from an analysis of his own acts, but must have begun as a speculation about the connexion of acts in which the spectator was not the agent. It would be specially pleasing to me to find that this is a correct account of Dr. Ward's view as I tried myself, some

years ago, to show that the whole supposed difficulty about freedom arose from tacitly adopting the standpoint of a spectator observing the behaviour of others, and then forgetting that what appeared to be "determined" was only so relatively to the assumed spectator.

With respect to the theological arguments for "predestination," while I am wholly in accord with Dr. Ward's solution, that predestination only looks to be a consequence of Theism when God is thought of as unable to create beings who can create in their turn, in fact as a cosmic constructor of mechanical toys, I cannot help feeling that he is a little unjust to Christian theology in his apparent assumption of the Westminster Confession as the standard of orthodoxy. My own bringing up as a boy was among persons who regarded themselves as thoroughly orthodox Christians, but I remember that I was taught to regard the Calvinist denial of free-will, with the cognate doctrine of the "divine decrees" as the most monstrous of all heresies. To my early instructors Calvinism was much what Jansenism was to Louis XIV., and I recollect seriously doubting whether a Calvinist could by any chance be saved. Prof. Ward, I take it, was not thus reared on the doctrine of Laud and the Jesuits.

In connexion with this matter of freedom, I doubt whether Dr. Ward need have made such concession as he does about the Divine omniscience. I do not myself see that it follows from the admission of freedom and contingency that there are future facts outside God's knowledge. And it is something to have the great scholastic theologians, the last persons to overlook such a difficulty or to be content with any half-hearted treatment of it, on one's side.

According to the doctrine which finally triumphed in the Church, it is true both that God foresees all our acts, and that we are genuine free agents. And the problem is one which depends on no new data discovered since the days of St. Thomas. This affords at least some presumption that his view is not patently absurd. To me it seems obviously sensible. As Mr. Bradley long ago said, it is not foreknowledge of our choices which we feel in itself irreconcilable with human freedom. We expect intimate friends to know how we shall choose to behave in danger or temptation, and we should be hurt if they did not. It is only the claim to predict our behaviour without such knowledge, by inference from given data, which alarms or annoys us when it is made by the astrologer or the fortune-teller. Further, the more intimate our friend's association with us has been, the more fully we think he will be able to tell in advance how we shall behave. If we may pass to the limit, then, I submit, that to the genuine Theist, who looks on God as being more intimately present to him than the nearest of earthly friends, and always thus present, there is no logical difficulty in believing that, much in the same way as a

human friend can tell confidently how we shall comport ourselves in some situations, God knows, from the insight of divine love, how we shall comport ourselves in all. Indeed, He must have this knowledge if He is to be a God in whom we can put trust for help in all our necessities. If a choice of mine could take God by surprise, how could He still be "God who knowest our necessities before we ask," or how could we pray that He would give us by His Spirit *recte sapere in omnibus*? As for the really objectionable kind of fore-knowledge, no one, I conceive, has ever thought of God as a magnified fortune-teller or palmist inferring our future course through life from data which are *not* our character.

There are one or two other cases in which, as it seems to me, Dr. Ward makes "Christian theology" responsible for views which are in the opinion of the great mass of Christians actually "heretical". Thus, in connexion with his very interesting discussion on the advantages which a sound evolutionary natural science confers on theology, he reckons it as not the least of these merits that we can, in the light of evolution, escape from the need for any doctrine of "original sin" to account for the low moral and spiritual level of savage humanity. I do not feel quite sure that *any* theology can be devised which will wholly get rid of what seems to me to be less a theory than a patent fact, and I am quite sure that Dr. Ward's hard language about the dogmas concerning the *peccatum originale* would have been modified if he had taken his notion of what *peccatum originale* means from some other source than the Westminster Confession. "Original sin" is there, in the definition quoted by Dr. Ward, identified with the "total corruption of man's heart whereby we are utterly indisposed to all good and wholly disposed to all evil". Now *such* a "total depravity of man" is, no doubt, an outrageous unfact, and it would be all to the good to have any scientific Theism which would dispense us from the necessity of believing in so ridiculous a slander on human nature. But fortunately the adherents of this doctrine have always been a minority among Christians. If Dr. Ward had taken the trouble to go back to the much better authority of St. Thomas, he would have found there a theory of *peccatum originale* which corresponds so closely to the known facts on which he himself dwells that I am sure he would have dealt more gently with it. Thus we read (*Contra Gentiles*, iv., 52) *patet igitur quod vitium originis ex quo peccatum originale causatur provenit ex defectu alicuius principii, scilicet gratuiti doni, quod naturae humanae in sua institutione fuit collatum*. The meaning is that the *peccatum originale* consists simply in the defective concepts of the Good and the weakness of our rational conception of Good, such as it is, to order and control our appetites, which are patent facts in human life. There is nothing in this conception of "original sin" to give rise to any conflict between morality and theology, no assertion of a "total depravity" of the human heart in virtue of which it wills

only evil continually. All that evolutionary science can correct in St. Thomas is a purely historical assumption, *viz.*, that the first man did not suffer from this defect, which is said to be due to the withdrawal of a special grace, until he hearkened to the voice of his wife and did eat. Apart from St. Thomas's error in taking the narrative of Genesis for history, his account of what "original sin" *is* is strictly in accord with the observed facts of human life.

So to take another point. On page 425 Dr. Ward's language about the "moral enormity" of the belief that those who "die outside the pale of Christianity" are "lost eternally," implies, I fear, a charge against Christians of holding a view which, in point of fact, exists, if at all, among a few small and ignorant sects, and is emphatically *not* that of the great Christian Churches. *Extra ecclesiam nulla salus* is, no doubt, formally the doctrine of both the Roman and the English Churches. But what is it to be *extra ecclesiam*? I think I may safely say that no Anglican theologian interprets the phrase in the sense put on it in Dr. Ward's quotation. At no time have the best Anglican theologians taught that Nonconformists are as such "lost eternally". And the assertion that they have predicted such a fate for the "virtuous heathen" rests on nothing but a simple misunderstanding of the 18th Article. The Church of Rome, in the same way, can avoid the "moral enormity" by the important distinction between the "soul" and the "body" of the *ecclesia*, the "*anima ecclesiae*" embracing all who have honestly endeavoured to live up to the measure of the light vouchsafed. (See the authoritative article "Church" by Fr. Thurston in Hastings' *Encyclopædia of Ethics and Religion*. Even in the Middle Ages St. Thomas and Dante had developed views obviously capable of very wide extension. St. Thomas, like St. Bernard before him, expressly denies that the "baptism of water" is indispensable for "salvation," and Dante is presumably orthodox in boldly placing Rhipheus, the *iustissimus unus* of Virgil's Trojans, high in Paradise.) The great Protestant Churches, so far as I know, are equally guiltless of the hateful doctrine which Dr. Ward seems to charge upon Christianity. I do not deny that individual theologians have held it; I only say that it has never been *de fide* in any important division of the Christian Church. It has always been compatible with strict orthodoxy to deny it, and it is now universally denied by the best authorities. Another theological matter upon which Dr. Ward seems imperfectly informed is the "Romish doctrine of purgatory". He rightly regards this as philosophically infinitely inferior to the Platonic doctrine, which, by the way, I know to be held pretty widely at the present day in the English Church. But he reveals inacquaintance with Roman theology in his surprise at the want of moral efficacy in the Romish doctrine (p. 406). But why *should* there be any profound ethical significance in the Romish purgatory? As Dr. Ward says, the purgatory of Rome is merely 'expiatory'. This means that it caricatures the

Platonic conception on two points. There are two possible ways from Plato's purgatory, a way up and a way down. From the Roman purgatory there is only one, the way up. Romanism is as hard as Protestant revivalism on the man who has not "found salvation" before he dies. For him there is only the worm that dieth not and the fire that is not quenched. Only those who are at death assured of ultimate salvation get into purgatory at all. And the object of their detention there is not, as with Plato, to teach them wisdom by suffering, or to train their weak will towards good. The will of the "holy souls," it is expressly taught, is already from the moment of death perfectly fixed towards Good. You can no more sin in Purgatory than you can sin in Paradise. The only object of purgatory is to be *not* purgative but simply retributory; you are paid out there for sins for which you have not paid a sufficient mulct in temporal suffering before death. Hence, as there is no moral aim of making the sufferer better, purgatory as represented by the Roman Church is, of course, wholly unethical, and the notion that a ceremonial performance can release the soul from it, or diminish the period of detention is quite in keeping.

With Dr. Ward's own defence of the genuine Platonist theory, including its completion, the doctrine of the succession of lives, as probably the best working hypothesis for the kind of Theism which, as I agree with him, Pluralism demands as its intellectual as well as practical completion, I find myself once more in full accord. Only I do not understand why on page 404 it looks almost as if he rejected the "creationist" theory of the soul's origin which I understand him to adopt elsewhere. However many incarnations a dominant monad passes through, either it must have been everlasting or not. And if not, Leibniz's contention holds good that a monad cannot be gradually produced; it must begin to be "at a stroke," that is to say, it must have been created. I see no valid reason for preferring the theory of the eternal pre-existence of all the monads, while the sense of utter dependence on God which is characteristic of all genuine and vital religion commends the other alternative. Moreover, in principle, Dr. Ward's own reasoning throughout his controversy with the atheistic pluralist, seems to me to coincide with the Aristotelian argument for the First Mover, in which I can detect no signs of invalidity. Creationism thus, to my mind, holds the field against all comers. Of course *we* being, *ex hypothesi*, creatures, cannot imagine what creation is like. Or, to put it more precisely, the nearest analogon in our life to God's creation of the world of persons and other monads is the relation of the artist or statesman to *his* "creation," or more generally of an agent to his act. But, though we can all "enjoy" the experience of "activity," none of us can "contemplate" it in another; all we can "contemplate" is mere sequence of movements, as Dr. Ward himself rightly insists. Hence we cannot strictly "picture" or "imagine" or

"describe" the creative attitude, and our failure to do so is no argument whatever against the reality of the fact, provided it is demanded by what seems the only satisfactory account we can give of the unity of the world as a moral, as well as a natural, order. I am inclined to think Dr. Ward has treated the positivist and agnostic who put the unimaginability of creation forward as a reason for not believing in it more gently than they deserve. At the same time I find him a little indiscriminate in his censures of the "old" creationism. Presumably, the "old doctrine" he has in view is that of the creation of the physical world *en bloc* about 6000 years ago. But it is well to remember that "creation" has never meant more for scientific theology than what it means for Dr. Ward, the complete dependence of the created world on God. And we might even add that since the doctrine of the derivation of the human soul by "traduction" from that of the parents has always, from a very early date, reckoned as a heresy (though it has been supported in modern times by some great names, *e.g.* John Wesley), the "old" creationism, at least as generally taught, explicitly insisted on the conception of "new beginnings" within the world which is commonly put before us as eminently "new," by writers whose pride it is to be heretics, while they are really so much more orthodox than they suspect.

A further most important and admirable feature of the book is the clear and convincing way in which it is brought out that what is really meant in modern science by "evolution" is not really "evolution,"—the unfolding, or expansion of what has been there all along, but epigenesis, the production of the genuinely new along a line of ever-growing determination. It is this definite advance in scientific knowledge which must compel the monadism which seems to be the only type of metaphysical theory that does justice to the existence of a world of experients to depart from the old monadism of Leibniz which is everywhere conditioned by his conception of development as a literal unfolding of something actually existing in miniature in the very first germs of the created world. And I may note that our modern exponents of the Absolute also seem always to have the Leibnizian notion of incapsulation before their eyes when they talk of evolution. What they mean, so far as I can discover, by the word is a curious compound of this obsolete biological conception with the Hegelian concept- or pseudo-concept of a dialectical, timeless, and phantasmagorical serial arrangement of logical notions. But incapsulation seems, at least, to be an indispensable feature in the concept, and hence, again, the bias of the whole school to a determinist interpretation of human action. Since their whole tendency is to regard everything as being already there, before it begins to be "incapsulated," so to say, in its "conditions," they naturally look at the effects of our deliberate choice in the same way, and tend to talk as if they were there before the choice is made. Hegel spoke of himself as a Lutheran (*ich bin es und ich will es bleiben*), he says in a curious outburst on the doctrine of Consubstantiation in the *Philosophy of Religion*, but the

natural affinity of his peculiar view of evolution is with Calvinism and its "divine decrees". Perhaps this may explain why Scotland has supplied so many of the chief exponents of his system in our own days.

Of Dr. Ward's plea for the life to come, I have nothing to say in detail because I am so absolutely in sympathy with him. "It do my heart good," as Samuel Pepys wrote after seeing a great lady's stock of petticoats and linen, to read so thorough an exposure of the miserable positivist attempt to find a substitute for the individual soul's arrival at the City of the Quest in an "immortality of the race," or an "unending progress" of the species, which the positivist knows at heart to be, on his own principles, an impossibility, exposed with such merciless logic. There is just one question which Dr. Ward does not, I think, explicitly raise, but it shall be mentioned here because it lies directly along the main line of his thought. So long as the human race has not reached its spiritual acme, it may be an inspiring thought that though we shall not see the "good time coming" we can at any rate hasten its advent by our labours and sorrows. But suppose this "good time" has already come, I presume it would be possible, on his own theory, for the positivist to know that it had come, and that at best all the future generations of mankind could effect by their efforts would be to retard a little the inevitable decline from civilisation to savagery, from humanity to mere animal existence, and final universal death.

However atheistic men might have come to be in the positivist millennium, their philosophy of life would then have to be utterly pessimistic. Their only hope would be to make the "second childhood" of humanity as agreeable and painless as might be. It is this secret sorrow of an enthusiast for humanity who knows that "second childhood" is the best he can look forward to for his race, that makes the millennial picture of, *e.g.*, William Morris's "News from Nowhere" such a melancholy spectacle. Perennial aspiration for more and more of knowledge, beauty, goodness seems impossible without confident faith that "actual life comes next" and that God will not shirk His task of making "the heavenly period complete the earthen". Hence the positivist and the Absolutist, who, where practical life is concerned, virtually behaves like a positivist, seem to me to be committed to the ostrich's device of burying his head in the sand, unless he is willing—and he never is—to tell upward-striving humanity that it is and has always been in the position of the fox jumping at the fruit out of its reach. And if you do tell them this, and get them to believe it, how long will it be before they, like the fox, resign themselves to the crying of sour grapes? One need be no "egoist" to agree with Dr. Ward that, as Prof. Varisco puts it, "Conservation of values is impossible without conservation of persons".

A. E. TAYLOR.

Varia Socratica. First Series. By A. E. TAYLOR. St. Andrews University Publications, No. IX. Oxford: James Parker & Co., 1911. Pp. xii, 269.

THE riddle of the personality of Socrates, with the resultant problem as to the nature of Plato's individual contribution to philosophic thought, exercises a recurrent fascination on the successive generations. In our own day the drift of Platonic scholarship has been towards a revision of the treatment of the diatessaron upon which the verdict depends. The nineteenth century, at once too sceptical and too constructive in matters Platonic, may be said, amid bewildering divergences of opinion on almost all else, to have shown substantial agreement in the view that the Platonic Socrates is a conventional and easily penetrated dramatic disguise for Plato's self. If then the *Clouds* of Aristophanes may be to all intents and purposes ignored or in the alternative subjected to a superficial misinterpretation, we are left with that inadequate Boswell, Xenophon, or with Aristotle, or with both, the proportions of the contamination varying in the different theories, as alone portraying, with any degree of fidelity, the historic Socrates. And what a Socrates! Perhaps 'one of those inestimable bores who are the salt of the earth,' to borrow what we believe was originally a description of Robert Owen. But the stress in any explanation of the undoubted influence of Socrates must then be laid not upon his teaching but upon his life and the circumstances of his death. Even so the presumed idealisation by Plato, his choice of such a figure to mask his own gifted personality, is well-nigh inexplicable. But the way is left free for all sorts of speculative constructions of Plato's philosophical development.

A reversal of this attitude was inevitable. The solution of the problems of the doxographical tradition as to the pre-Socratic philosophers has led to an increased and substantially accurate knowledge of the intellectual atmosphere of the fifth century. A happy breakdown in the system of watertight compartments in Greek scholarship has brought in contributions from so widely separated spheres as, *e.g.*, the non-philosophical poets and the medical writers, that have opened our eyes to the ferment of the age of Socrates. If he was untouched by the spirit of his age, he was not only not its greatest personality, he was not even in any sense a leader. As we retroject more and more of the learning and culture that we find in Plato into the pre-revolution period, the more we are compelled to seek the historic in the Platonic Socrates, with less and less discounting for idealisation. To the movement in this direction Prof. A. E. Taylor's five brilliant essays contribute the first instalment of what may be called its general polemics. He promises too that the rehabilitation of Plato's portrait of Socrates shall be followed by a reconstruction of Platonism, so that we shall not lose the lineaments of the disciple with the

recovery of those of the master. In his support of the main thesis Prof. Taylor does not of course stand alone. And there has apparently been some pooling of materials with Prof. John Burnet. But in much of his detail and in some of his devices of method he exhibits a high degree of originality, and by the generous scope of his complete plan he may be said for the first time effectively to occupy the whole field of enterprise. He reminds strongly now of Dümmler, now of Krohn, but he works of course with different instruments and with a different organising idea, and so to a different end. The Socrates who is presented to us as the veritable historic figure, implied in all four accounts, but distorted in one picture, fully portrayed in one only, may be summarily described as the Socrates of the *Phædo*, with his affinities to Pythagorean thought, his familiarity with and sentiment for the 'rule' of the Orphic initiates and its central principle of the probationary nature of life in the flesh, with his past of strenuous scientific inquiry, and his present hold on the doctrine of ideas and upon that of indiscerptible and therefore eternal soul. For the fidelity of the *Phædo* there are strong æsthetic and moral reasons of a special kind. But other dialogues give, it is pointed out, precisely the same picture. They are in Aristotle's view to be grouped with the mimes of Sophron and Xenarchus as realistic prose dramas delineating human characters and their interaction. If we will but look, we are to find the characterisation just.

Prof. Taylor's first essay deals with the *Apology of Socrates*. The indictment for impiety included three counts, disrespect to the official cult, adhesion to an unrecognised cult, and deprivation of the younger generation. If the first two charges are not merely thrown in to weight the third, the second and the way in which it is dealt with in Socrates' defence obviously raise a problem. If the 'divine sign,' humorously suggested in the defence as a ground for the second charge had been really a matter for indictment, nothing of current belief and religious practice was free from attack. What Prof. Burnet happily compares to the Highlander's second sight, and what M. Prosper Despine accounted for long ago in his *Psychologie Naturelle* as a misunderstanding by Socrates himself of the combination of shrewd practical judgments, mostly cautionary, with auditory symbolism or imagery of a specially vivid kind, was as nothing by comparison with contemporary developments in augural medicine and the like. Prof. Taylor's solution is to conceive the second charge to be true in the sense intended and to be left unanswered because indeed unanswerable. If not a Pythagorean in the strict sense, *e.g.*, probably not vegetarian, if we accept the humour of the description of the City of Pigs in *Republic*, ii., Socrates was yet chargeable with communion with the Pythagorean exiles in an unauthorised and secret mystery, reasonably suspect of being anti-national and at the least anti-democratic. Public opinion was against the Pythagorean conception of philosophy as a

meditatio mortis or of life in the body as the true death and burial of the soul, as Prof. Taylor well shows from words of Theseus in the *Hippolytus*, and from the charges against Euripides in the *Frogs* of Aristophanes, where the doctrine of *σῶμα σῆμα* is a crowning impiety, coming as a climax to the sacrilege of one heroine and the incest of another. But it is only as associated with cult that they are indictable. The Orphic beliefs of Socrates—the *Phædo* shows that Socrates is not committed to the detail of Orphism even on the theosophical side, as distinct from the magic condemned in the *Republic*,—come out, it is contended, after the condemnation, when alone they could with propriety find expression. This is but one of Prof. Taylor's many skilful uses of the distinctions between the several stages of the trial. The whole argument is of course a hypothetical construction, but it might well be true, if the characterisation of Socrates can find support from elsewhere, as *e.g.*, from the *Phædo*. The learning with which it is supported, and incidental results, for example, with regard to the text in certain passages of Æschylus concerned with clairvoyance in sleep, are of an independent value.

If it be said that Xenophon's representation of the meaning of the charge makes against the view taken, it is to be answered that the young military adventurer had no intimate knowledge of Socrates; the retired officer, for whom Socrates was the victim of the democracy, was demonstrably inaccurate, as when he claims to have heard Socrates speak of the battle of Cunaxa, self-contradictory as, for instance, with regard to the master's attitude to the mathematics, dependent apparently upon Platonic dialogues for much of his material, as in a notorious conflation from the *Phædo*, and concerned to maintain that Socrates was guiltless in that he held no views at all that went beyond platitude!

Prof. Taylor is surely wrong in his insistence that the charge was one of *importation* of unauthorised cult. Nothing is alleged but introduction. And we should demur to the statement that 'Eleatics were regularly reckoned in antiquity as a sort of heterodox Pythagoreans' (p. 18), even though 'in all probability the school followed the Pythagorean "life"' (p. 20, n.).

The second essay on "The Aristotelian Socrates," though Prof. Taylor is somewhat apologetic for its less polished form, is equally striking. The writer first essays the annihilation of what is called Fitzgerald's canon, according to which, while *Σωκράτης* in Aristotle always signifies the historic Socrates, *ὁ Σωκράτης* always designates the literary or Platonic Socrates. He then proceeds, by a consideration of Aristotle's references to either, to show that the case for regarding Aristotle as an independent witness is a weak one, since upon a full survey his allusions seem, with no important exception, to be such as may have been drawn from Plato and the Academic tradition. Finally we are offered a reconsideration of the one passage commonly interpreted in a way strongly to contravene this conclusion.

As regards the first point. We have all of us at one time or another been fascinated by the simplicity of the alleged canon, and have applied it here and there, and then been puzzled when it has seemed to work less happily elsewhere. Prof. Taylor takes many instances not only of Socrates but of other proper names where there is both a literary and an historical personality in question, and decisively invalidates the canon, with even a superfluity of evidence, since, e.g. *Met.* 1078 b 30 as compared with 1086 b 3 *sq.* would of itself suffice. This piece of work at least will not need to be done again.

On the other hand it is clear that the second of Prof. Taylor's points, viz., his induction that such of Aristotle's references to Socrates as are of philosophical importance may all have been derived from Platonic sources, is decisive only if we allow his rejection of the traditional interpretation of *Met. M.* 1078 b. With this passage *Met. A.* 6 where Socrates' influence on Plato is strongly asserted, Plato's divergence from Socrates definitely indicated, and Platonism differentiated from Pythagoreanism specifically by doctrines which are in no way Socratic, can alone compare in significance for Prof. Taylor's thesis. We have in *Met. M.* 4 two distinct positions enunciated. The first is the service of Socrates to science through his inductive λόγος and his insistence on general definitions, —the latter for the first time in ethics, since certain anticipations by the Pythagoreans were connected with 'numbers'. The second is the non-separation by Socrates of his universals and definitions from their particulars (*cf.* 1086 b 4) in which he contrasts with a group of thinkers who held the doctrine of separation and called the separate or pure universals ideas.

Now Socratic 'induction' and definition are undoubtedly exemplified in abundance in Plato, but Prof. Taylor is correct in refusing to allow that Socrates admitted examples as proof, or that it is clear that he definitely stopped short at the subjective class-concept as opposed to objective essence. The medical writers (p. 73) had already a terminology of postulate (*ὑπόθεσις*) and verification (*ἐπαγεσθαι μαρτύρια*) which corresponds rather to the more advanced dialectical method of the inner circle of the *Phædo* than to the *παραβολή* of the dialogues of search. On the other hand we venture to think that Prof. Taylor underestimates the heuristic importance attaching to the simpler process, the extent to which it was regarded as enabling insight to work, when inquiries were on foot as to the essential meaning, αὐτὸ ὃ ἐστίν, of a conception. It is a question of stages. And some discussion of *Politicus*, 278, with its difference from Hippocrates in the use and associations of ἐπάγειν would be necessary, if the history of induction and its terminology is adequately to be made out.

The other matter, however, is the crucial one. So far back as Alexander of Aphrodisias the interpretation prevailed that the separatists were οἱ περὶ Πλάτωνα, so that the passage draws a radical

distinction between the Socratic view of universals and that maintained by Platonism. Prof. Burnet and Prof. Taylor, however, regard the distinction as obtaining rather between the historic, i.e. the Platonic Socrates on the one hand and οἱ τῶν εἰδῶν φίλοι as portrayed in *Sophistes*, 248 sqq. These so separated Being and Becoming that true δόξα was impossible, and the gist of Plato's retort is, that knowledge as process would be so likewise. The χωρισμός here is undeniable, and Prof. Taylor develops a constructive theory as vast as some that he rejects. The dissent from the Platonic form of the doctrine of participation has affinities, he points out, to the argument in the early pages of the *Parmenides*. The familiarity of the Eleatic stranger of the *Sophistes* with the dogma again suggests an Eleatic provenance. The reference alike in *Sophistes*, 248, and *Met. M.* is to 'a school of mathematicians, half-Pythagorean and half-Eleatic' (p. 87), possibly represented at the date of the *Sophistes* by 'the circle connected with Polyxenus and the mathematician Bryson' (p. 85).

We confess to finding some little difficulty in the phrase 'half-Eleatic'. To desert the One of the absolute monism was to become an Eleatic stranger, a stranger alike to Eleaticism and to such of the Socratic circle as had not undergone the baptism of the Eleatic Logic. Proclus, however, in *Parmenidem* (Stallbaum, p. 562) says ἦν μὲν γὰρ καὶ παρὰ τοῖς Πυθαγορείοις ἡ περὶ τῶν εἰδῶν θεωρία, καὶ ὁ γὰρ αὐτός ἐν Σοφιστῇ τῶν εἰδῶν φίλους προσαγορεύων τοὺς ἐν Ἰταλίᾳ σοφοὺς, and if we regard 'the friends of ideas' as a group of Pythagoreans all seems to go well at first with the identification of these with the separatists of *Met. M.* Οἱ δ' in 1078 b 31, which Mr. Ross we see translates 'his successors,' could be referred not unreasonably to οἱ Πυθαγόρειοι in 21, and their non-use of the formula of μέεξις is one of the differences from Plato noted in *Met. A.* 6. But then comes the strong point in favour of the traditional interpretation that the phrase as to calling this sort of reality ideas (1078 b 31 sq.) is that used by Aristotle unambiguously of Plato himself in distinction from Socrates (*Met. A.* 6, 987 b 7 sq.). And Aristotle's whole criticism of the 'ideas' is governed by a rejection of 'participation' as metaphorical, and the consequent presumption of a χωρισμός. It seems then that while 'the friends of ideas' may possibly be identified with a Pythagorean group, and we must regard Plato as contrasting with this group, we must at the same time take it that Plato was regarded by Aristotle as, in this matter, more Pythagorean in his affinities than Socrates, and as committed at least inferentially to a separatism to which Socrates was not. The phraseology as to the doctrine of ideas on page 71 is a very real contribution to clearness on this difficult subject. On the other hand the following page perhaps shows Prof. Taylor at his worst.

The relatively short essay on the διασσοὶ λόγοι which follows next in order is of less significance for the rediscovery of Socrates. All that can possibly turn upon it is some added emphasis upon the

dialectical development of the fifth century, and some dubious and highly conjectural dating of Platonic dialogues, notably the *Protagoras*, the *Meno*, and perhaps the *Gorgias*. It is not possible to base any large hypothetical construction upon a document not quite certainly what it purports to be and itself dated in a way calculated to enhance the suspicion that it is a 'school' exercise, and Prof. Taylor is quite ready to admit (p. 119) that no positive result can be reached as to its dependence upon Socratic influence. He has too the excuse that distinguished experts have accepted it at its face value, and that it affords, if genuine, some interesting parallels to certain pieces of Socratic argument, and he has handled its antitheta with skill and judgment. Yet the temptation to use improper weapons in order to force the crowding of the earlier items in the Platonic canon into very narrow limits of date is so strong with advocates for the view of Socrates that Prof. Taylor upholds that it must be regarded with a watchful eye. A notable instance of its insidiousness is the attempt (p. 120) to date the *Republic* 'before Plato's first visit to Sicily' on the faith of a passage in the seventh letter (326 a). As to the genuineness of the letter many will surely incline to the measured judgment of Mr. Herbert Richards in his *Platonica*, and Prof. Taylor himself entertains the possibility that the author was 'an immediate disciple' of Plato. If not genuine it proves nothing. If it were genuine it would at most confer considerable probability on the view that a certain sentence 'in eulogy of right philosophy' had already been drafted and in some form published at the date of the letter. However, Prof. Taylor defers fuller discussion of the date of the *Republic* to another opportunity.

The fourth essay on the Phrontisterion is the most brilliant in the book. The Socrates of the *Clouds*, it is maintained, is not, as the conventional view holds, a figure typical of the Sophist or professional rhetoric-teacher, chosen because of the facility for caricature afforded by his physical attributes. 'Wrong Reason' in that play may very probably be identified with the sophist Thrasymachus, but the picture of Socrates is of something quite other, the head, namely, of a definite group of scientific students, typified not by the golden youth of the day, but by Chærephon, with an askêsis or discipline of Pythagorean-Orphic character,—it were much to be desired that what Orphism means at this date and in this regard could be set out for us, not in incidental hints, but in its main characters. At any rate the catchwords of 'the thinking-shop' belong to the jargon of a recognisable school. Its science is, like that of the *Phaedo*, of the middle of the fifth century, and notably pre-Protagorean in its point of view. It is not the Socrates of the 'public apostolic dialectics' that is here before us, but the Socrates of the 'philosophic' inner group, with its common table, its characteristic poverty, and its high thinking. And the catastrophe parodies the burning of the Pythagorean schools. Aristophanes is

at one with Plato and not with Xenophon, and Socrates' analogy to the sophists goes no deeper at any time than to the extent indicated in so masterly a fashion in Plato's sketch of 'the sixth sophist' in the *Sophistes*.

The fifth essay deals with the words *εἶδος* and *ἰδέα* in pre-Platonic writers and chases them through the historians, the dramatists and the medical *corpus* with astonishing ardour. The aim and result is to make less plausible the conventional view that we start with the class to reach first the class-concept and then the hypostasised class-concept. Prof. Taylor's depreciation of the *ἐπακτικοὶ λόγοι* of Socrates was motivated by the same controversial need, but here he is on surer ground. He would hold that *εἶδος* never or hardly ever need mean 'class,' a meaning which is a retrojection of Aristotelian associations upon Plato and his foregoers. This piece of lexicography is not easy reading, and Prof. Taylor is sometimes more, sometimes less, happy in dealing with his instances, but the conclusion seems to emerge that the sense, if often geometrical, seems more commonly to be one of almost equivalence to *φύσις* in its early philosophical use. In the face of Prof. Taylor's cloud of witnesses it is impossible to maintain the traditional formula of a transition from Socratic *εἶδος* to Platonic *ἰδέα*. It does not, however, follow that Aristotle does not support the convention.

Obviously these essays do not meet all the difficulties of Prof. Taylor's thesis. The Socrates of the dialogues of search concerned with the definition of the several moral virtues, the Socrates that was wisest because he had at least the wisdom to know that he knew nothing, the Socrates finally whose *μειντική* was to be practised only by one presently barren of notions, is still with us avouched for by Plato himself. And the picture does imply a considerable degree of idealisation on Plato's part elsewhere, however much we insist that the midwife has earlier been fruitful, or that the midwifery is Orphic in its symbolisation. And the question is, what is the degree? That the Platonic Socrates, and specifically the Socrates of the *Phædo*, is the true Socrates, we would fain believe, nay, do believe, but whether the truth is of fact or of idea is still the issue. For the former alternative the brief, that Prof. Taylor has exposed, so far in part only, may be admitted to exhibit a strong case and one not easily to be met.

HERBERT W. BLUNT.

John Wesley Young : Lectures on Fundamental Concepts of Algebra and Geometry. Prepared for publication with the co-operation of William Wells Denton ; with a note on "The Growth of Algebraic Symbolism," by Ulysses Grant Mitchell. New York : The Macmillan Company, 1911. Pp. vii, 247. Price 7s. net.

THESE lectures were given at the University of Illinois in the summer of 1909, and profess to be an account of the logical foundations of Algebra and Geometry, where the necessary technical mathematical equipment is reduced to a minimum. Prof. Young gives "a general exposition of the abstract, formal point of view developed during the last few decades, rather than an exhaustive treatment of the details of the investigation". Then he goes on : "The results of recent work on the logical foundations are of vital interest alike to the teachers of mathematics in our secondary schools and colleges and to philosophers and logicians"; and the lectures are interspersed with digressions on history and teaching.

In the first five lectures our conceptions of space are considered rather informally,¹ and the point of view to be followed in the later, more formal discussion is illustrated in a general way (p. 8). In these introductory lectures it "became apparent that a *purely logical treatment of geometry implies a purely abstract treatment*. Beginning with the observation that it is impossible to give formal definitions of every term, or to give formal proofs of every proposition without becoming involved in a vicious circle, it was seen that the starting-point of any mathematical science must be a set of undefined terms and a set of unproved propositions (assumptions) concerning them. The science then consists of the formal logical implications of the latter" (pp. 58-59). In the final lectures a more systematic discussion of various fundamental concepts of mathematics, beginning with the notions of *class* and *cardinal number*, was given.

That aspect of mathematics with which Prof. Young is chiefly concerned "relates to the fact that mathematics, in particular algebra and geometry, consists of a body of propositions that are *logically connected*". And : "Let it be said at the outset that we shall not be primarily concerned with the psychological genesis of these concepts, not with the manifold and interesting philosophical questions to which they give rise". A *mathematical science* is defined (p. 2) as "any body of propositions arranged according to a sequence of logical deductions ; *i.e.* arranged so that every proposition of the set *after a certain one* is a formal logical consequence of some or all of the propositions that precede it". Thus, Euclid's *Elements* is the first attempt of which we have any record to establish a mathematical science as the term is defined (p. 8). The

¹ In the exposition of non-Euclidean geometry Poincaré is followed closely.

branches of mathematics may be defined (p. 181), but the general question is discussed, as one would expect, only at the close of the lectures (pp. 217-221).

We think that there are difficulties in introducing questions of teaching and history into a logical discussion. Prof. Young says (p. 4) that "Every one interested in the logical side of scientific development is vitally concerned with" questions of teaching; and he tries (p. 7) "to eradicate the all too common feeling that the fundamental conceptions of mathematics are fixed and unalterable for all time". The truth is, of course, that the principles of mathematics *are* unalterable: the process of *discovery* of them may grow, but this is a psychological question. Again, when defining mathematics on page 221, Prof. Young thinks that the *method* is an essential, "for with all our insistence on the formal logical procedure, the important fact must not be lost sight of that formal logic is in only a small minority of cases the method of mathematical discovery. Imagination, geometric intuition, experimentation, analogies sometimes of the vaguest sort, and judicious guessing, these are the instruments continually employed in mathematical research." We might add that, according to this, mathematics would include the science of dietetics.

One more point where logical needs come into conflict with pedagogical needs is in the question of the number of indefinables. "To a mature mind," says Prof. Young on pages 56-57, "the problem of reducing to a minimum the number of undefined terms and of rendering the set of unproved propositions independent is interesting and important; to the mind of the high-school pupil the problem has no meaning. By all means let the number of formally undefined terms and the number of what we may call preliminary propositions (*i.e.*, propositions formally unproved) be large. Let us remember that our primary object is not to teach our pupils to *know* geometry, but rather to lead them to *think* geometry."

There must be undefined terms at the beginning of any mathematical science, says Prof. Young on page 3, neglecting the possibility of their being defined in terms of the entities of logic; and then he misunderstands Mr. Russell's "more or less humorous dictum" (p. 4) or "rather humorous definition" (p. 53): "Mathematics is the science in which we never know what we are talking about, nor whether what we say is true". Prof. Young's interpretation of this definition is: "We do not know what we are talking about, because the things about which we are talking are entirely undefined; and we do not know whether what we say is true, because we cannot know whether the assumptions regarding these undefined terms are true".¹ Mr. Russell was of course referring to the indetermination of the variable. The point of Mr. Russell's definition is evidently missed by Prof. Young, for he states (pp.

¹ Thus Prof. Young apparently only regards those things as known which can be expressed in terms of things which are not known.

53-54, 217) that Russell defined mathematics as the class of all propositions of the form "P implies Q," and does not mention that we have to do with propositional functions and formal implications.

When dealing with the consistency of a body of propositions, Prof. Young (p. 43) rightly remarks that the only test is that which connects with the abstract theory a *concrete representation* of it. "If we can give them a concrete interpretation which satisfies, or appears to satisfy, all our assumptions, then every conclusion that we derive formally from those assumptions will have to be a true statement concerning this concrete interpretation." The words "or appears to satisfy" seem unnecessary. And, on page 224, Prof. Young seems to misunderstand the meaning of "concrete"; for he says that this necessity for exhibiting a concrete application "is a fatal defect in any attempt to place the foundations of mathematics on a purely formal logical basis". The concrete instances are, of course, generally, logical entities.

Prof. Young falls into the usual error of mathematicians of supposing that pure mathematics deals with the symbols in which it is written (*cf.* pp. 43, 104-105, 115). On page 220 Prof. Young hints that abstract symbolism constitutes only the "skeleton" of the science. It would be more appropriate to say that it constitutes the clothes. A slight approach to the true view is given on page 223. The tendency of mathematicians to regard mathematics as dealing with symbols seems to be due to difficulties in the interpretation of the "variable," and this is strikingly illustrated by Prof. Young's treatment on pages 192-193.

Prof. Young's nominalism also appears in the definition of a cardinal number given on page 65; where also he might with advantage have referred to Frege, Weber and Russell.

On page 59, the notion of *class* is taken as primitive. From this follows the shallow treatment of Russell's contradiction on pages 219-220. It is perhaps too much to require of lectures delivered in 1909 that they should take account of work published in 1905 and 1908. It appears to be rather common for mathematicians to think that the traditional foundations of logic can be preserved while the contradictions of the theory of aggregates are simply ruled out of court as "scholastic". A recent example of this was given by Prof. Schoenflies, amid a medley of battle-cries against "resignation," "*Scholasticismus*" and "*Russellismus*".¹

On page 101, a rational number is stated to be a pair of integers. This pair must be *ordered*, for otherwise we would have 1:2 equal to 2:1. On page 102, the sign for equality is redefined—an unnecessary and confusing proceeding.

Dedekind did not define irrational numbers as "cuts" (p. 104): this was Weber's definition. Dedekind simply said that they are "defined by cuts". On page 103 "Méry" might be given its

¹ This method is analogous to the unwise procedure of sawing off the branch on which one is sitting.

accent; and the point of the theories of rational numbers, in avoiding a certain logical error, might have been also given (see p. 201). On page 105 rational numbers are added to irrational numbers (relations to classes). On pages 111-113 the "principle of permanence" is discussed at length without any remark about its logical irrelevance.

Neither Grassmann nor Hamilton founded their Algebras on a "purely formal foundation," so that the statement on page 128 is misleading.

We should hardly say, with Prof. Young (p. 71), that the series of real numbers is characterised by its ordinal type; for parts of this series have the same type. There is some confusion about what Prof. Young calls the "postulate of linearity". On page 68 he defines *linearity* in the usual way, and then, on pages 84-86, he arranges the points of a square in an order which is linear (of type θ^2), and says that the series is not linear because it is not what Cantor calls "*zusammenhängend*". On the same grounds, the series formed by removing from the linear series of real numbers those numbers which are greater than $\frac{1}{2}$ and less than $\frac{3}{4}$, which is of type $\theta + \theta$, would not be linear.

On page 81 it should have been mentioned that Cantor used the *binary* system—a point of great importance in connexion with the multiplicative axiom.

There is a confusion between the domain of a function and the function itself on page 193. On page 194 there appear to be three errors: Prof. Young states that Descartes first used the word *function* to mean an integral power of a variable, and that Euler called the functions defined by Bernoulli *analytic functions*. The word *function* was first used by Leibniz; nobody at all seems to have used the word simply to mean an integral power; and it was Lagrange, not Euler, who used the term *analytic function*.

The definition of a limit on pages 202-205 is too narrow (*cf.* p. 208).

On page 81, ω is wrongly used for Aleph-zero. On page 51 the remark, which may be correct, is made that Peano began his logical work in 1880. We cannot verify this: Peano's first logical work was published in 1888. On page 86 it is stated that Cantor's series of papers on the theory of aggregates began in 1872; and yet the reference to the only paper of Cantor's which appeared in that year (*Math. Ann.*, vol. v.) is omitted.

Lecture XVIII. seems good, and many of the lectures seem stimulating. But it cannot be said that they give an adequate picture of modern investigations in logic. Thus Hilbert's work is dealt with (see p. 139) at far greater length than it deserves considering its logical defects.

PHILIP E. B. JOURDAIN.

VII.—NEW BOOKS.

Truth and Reality: an Introduction to the Theory of Knowledge. By J. E. BOODIN. Published by the Macmillan Company. Pp. ix, 334.

THE present work is mainly epistemological and is to be taken as in some measure introductory to a metaphysical volume called *A Realistic Universe* which the author proposes to publish shortly.

It begins with a genetic account of the individual mind. The author is here concerned to show that the higher stages of mental life constitute genuine leaps and that they cannot be analysed into mere complications of what was present at a lower stage. Interaction with an appropriate environment is needed to produce them and the lower stages must have been present first, but these are conditions and not the full constituents of the higher stages. It is also insisted that we must assume innate capacities to produce these stages under appropriate stimulation, a view which is supposed (rather rashly, I think, though the author might quote in his favour a famous sentence in Gibbon's *Autobiography*) to be denied by Locke and the English school. Owing to the necessity with which all these stages of mental life are evoked by the right stimulus at the right time the author calls them instinctive. As the thought stage is itself instinctive in origin in this sense the author might be accused by a careless reader of trying to produce reflective thought out of instinct. This would be a mistake arising from the fact that the mental reactions typical of the lower stages of mind follow on their stimuli in the same kind of way as all the stages including that of reflective thought follow as wholes on their appropriate stimuli.

The author seems to me to use the word 'category' in an unusual sense. He includes Habit and Imitation together with the usual categories, and he says that there are categories at every stage of mind. But surely there is a difference. Habit, *e.g.* is a quality, a characteristic of mind, at certain levels, but space is not a quality or characteristic of a mind at any level. Thus habit is not a category of the habitual level in the sense that space is a category of the perceptual level.

Judgment is next discussed. It is an attempt to adjust ourselves to an unsatisfactory or novel situation by grasping reflectively what it has in common with other situations that have already been satisfactorily dealt with. An effort is made to prove that negative judgment must precede positive ones. The argument is that it is only by finding that the situation does not fulfil expectation that we are led to make positive judgments in order to deal effectively with it. This may be very true, but it does not prove that the dissatisfaction has to be expressed by a negative judgment or by a judgment at all. Surely a present pain would be enough.

Two statements that appear to me to contain logical errors must be noted. Prof. Boodin says that inference is only an expansion of judgment. This is to forget the essential peculiarity of inference, *viz.* the principle that if the antecedent of a true hypothetical can be asserted

the consequent can be asserted alone. The other doubtful statement is that all arguments could be rendered syllogistic by the introduction of suitable major premises. Let the author try his hand on ' $A > B, B > C, \therefore A > C$ '.

On page 106, where Prof. Boodin discusses consciousness of relations, I find two sentences in a very odd conjunction. 'Is our consciousness of likeness and difference, of side by side . . . reducible to mere sensations in the head or throat? Is the consciousness of the activity of thought in short reducible to kinæsthetic images and sensations?' Surely these two questions are not the same as the phrase 'in short' seems to suggest. Unless 'side by side' and the other relations be activities of thought consciousness of side by side cannot be the same as consciousness of the activity of thought. To ask whether the latter is reducible to kinæsthetic images and emotions is to ask a reasonable question, but the same cannot be said of the first inquiry.

Prof. Boodin now discusses the Axiom of Internal Relations. He holds that some relations as far as we can see are merely external, but that others are not and that there is no logical reason why all should not be internal. I think his discussion would have been greatly improved if he had stated clearly what is meant by the very ambiguous phrase 'making a difference to their terms' which is freely used in arguments on this subject. He seems to hold that the parts of living bodies are internally related. Whether this be true or not must of course depend on what is meant by internal, but I would suggest that the parts of living bodies are perfectly capable of existing for a time at any rate in other relations, and that the fact that when so related they do not form a *living* whole is not more remarkable than the fact that it is only in certain spatial relations that Oxygen and Hydrogen form an explosive whole.

The postulates of thought are next considered. These according to Prof. Boodin are the laws of Identity and Contradiction, the subject-object relation, the law of totality, and the law of finitude. The law of totality means that everything that can be experienced must be capable of making some difference directly or indirectly to some mind. The law of finitude is that nothing that we experience can need an infinitely complex act of thought. This is true as a matter of empirical fact and it was perhaps of value to insist upon it as against Royce, but I see no reason to think that it need apply to all minds. Whether the laws of logic apply to things, Prof. Boodin thinks, is a question that can only be decided by acting upon the assumption that they are true and seeing whether they are verified. I do not think that the matter can really be put in this way. If the laws be true at all they do apply to things and the whole question is: Given that we believe them are they true? And I do not see how any experience could support or refute them because if they were false we could not tell what ought to follow from any hypothesis even from the hypothesis that they are false.

In the latter part of the book the author expresses the very chastened form of Pragmatism, which he holds. It is in fact nothing but the hypothetical method. In insisting that all ontological speculation must follow this method I agree with Prof. Boodin. But the method itself rests on principles which cannot be proved by it without circularity, for which in fact there is no evidence and never can be any. Pragmatism, which the author considers to be a purely epistemological theory, has been blamed, he thinks, for metaphysical speculations which individuals have built upon it. Thus it is not to be identified with humanism or with the view that truth and usefulness coincide. Prof. Boodin's own metaphysical position is realism but not *naïf* realism. It is to be noted that on his definition of idealism the view that *esse = percipere* would be quite compatible

with realism though he himself does not think there is evidence for that axiom. His view seems to be that things really do have sensible qualities in certain contexts, *viz.* when they stand in certain relations to organised bodies with minds. In other contexts they have different qualities. It is hardly fair to criticise this view until it has been more fully stated and defended in Prof. Boodin's coming work. A difficulty that suggests itself is the following: A sees a body from straight in front and it looks circular, B sees it from an angle and it looks elliptical. A says 'the body X in the context *a* is circular' and B says 'the body X in the context *b* is elliptical'. So far there is no contradiction. But unfortunately the body is in both contexts at once and \therefore is at once circular and elliptical for it is the body and not the body-in-such-and-such-a-context to which these qualities are ascribed.

The last chapter is devoted to the reality of religious ideals. The hypothetical method is again employed, but, as it seems to me, employed wrongly. If religious belief be necessary in order to obtain the highest kind of life then the religious ideal must possess in some degree objective reality, we are told. Now this may be a valid argument if certain premises be supplied, but it is not in any case, as the author seems to think, parallel to the testing of a scientific hypothesis by experiment. For the higher life that (we will suppose) is only lived by persons who believe in God may very well not be a result of the truth of the belief *i.e.* of the actual existence of God, but of the belief as a psychical event independent of its truth or falsity.

Finally some misprints are to be noted. On page 16 should not 'evolutionary' be substituted for 'revolutionary'. On page 303 Sir J. J. Thomson has an excrement *p* forced into his name.

C. D. BROAD.

Maurice the Philosopher (a Dialogue); or *Happiness, Love and the Good*.

By HAROLD P. COOKE, Lecturer in Armstrong College; with an introduction by Dr. F. C. S. Schiller. Cambridge: W. Heffer & Sons, 1912. Pp. xiii, 106.

The chief impression one gets from this book is of the extreme difficulty of the task which Mr. Cooke has set himself. The writing of dialogue in a novel or a play, whether light or serious, is a simple matter compared with that of making the reader interested in the verbal struggles of three young modern philosophers discussing the largest ethical questions, however realistically. In fact, the more realistic the scenes are made, the more one's attention is distracted from the ostensive problems themselves, and drawn towards the logical and rhetorical side of the situation. Mr. Cooke's young graduates—like real ones—are in the first place bent upon turning their phrases well and prevailing over each other, and only in the second place upon the spade-work of inquiry. The result is that what we get is chiefly an object-lesson in the subtler tricks of debate, and in the logic which underlies them. So regarded, however, the realism of the treatment is an advantage. The air of summer-weather leisure in beautiful surroundings agrees very well with the good-tempered complacency of the characters; and it helps to account for the ease with which certain large assumptions, natural to the unifying purpose of philosophy, pass unnoticed at first and yet gradually make their presence felt.

The conception of 'perfect happiness' as capable of existing at all is one of these assumptions—perfect happiness conceived as an intense and unbroken feeling. But does our mundane experience of happiness lead us

to suppose that any such state of mind is possible? Happiness, as we know it, is related to desire, and so to dissatisfaction; the removal of dissatisfaction—and therefore always its incomplete removal—seems to be a necessary condition of any happiness we experience in actual life. Again, nothing is more certain than that different men find happiness in different degrees of effort against dissatisfaction. To make no further distinctions than the obvious one between young and old, an old man's happiness would often bore a young man, and a young man's happiness would be too strenuous and precarious for the old. Nor is any one man, old or young, always in the same mood in regard to the joy of effort.

The three characters in the dialogue are, indeed, all of them young, but even amongst them we find some differences; else they would not be disputing. The notion of happiness leads them to consider in a rough general way what modes of life are conducive to happiness—for instance, the solitary life or the social life, philosophy or love. Thus in spite of the inevitable defects of an inquiry professing to be concerned only with ideal perfection, certain interesting questions of a practical kind gradually come into view, such as that of the relation between individual and universal happiness, and of the transient and changing character of love or friendship. It is like real life that a discussion should start with large assumptions arising out of the use of abstract terms, that by degrees and almost by accident these assumptions should run up against the actualities of our experience, and that even at the end their assumptive character should be only partly recognised.

The chapter on "Happiness the Good" contains logical interest of a different kind. Here we are introduced at once to the problem about describing one thing in terms of another—"the Good" as 'the absolutely satisfactory'. And our three young men embark on this problem holding apparently the ordinary loose notions of the nature and purpose of definition. They fail to discriminate between defining a name (or notion) and giving an account of the thing named, and again between explaining the generally accepted average meaning of an unfamiliar word and limiting the meaning of a familiar word as used in a particular assertion. The resulting confusions are what we have all experienced in conversations about any difficult notion. 'Definition,' it is tempting to suppose, is one process only, and consists in stating "the parts that together go to make up a thing". From which it follows that a 'simple' notion—one that "cannot be carved into parts by the instruments of logical dissection"—cannot be defined; a doctrine which is highly satisfactory to the vague assessor, but never to his critic.

The dialogue in this part of the book—especially pages 49-87—will repay a careful study. Though none of the three debaters shows a clear understanding of what is wrong with this view of the nature of definition, it is the character called *Leonard* who is most under its influence, the other two *dramatis persone* being (as also in the former chapter) agreed enough to combine against him. Leonard, besides appearing to hold that when you find a difficulty in defining a notion—e.g. 'Good'—all you have to do is to claim that the notion is simple, openly and expressly maintains that name and notion (in general) are distinct and independent of each other. The others will not have this, but they take a rather circuitous way of disputing it. A fourth character seems needed here, to point out that the distinctness of name from notion exists only so long as we are not concerned with that most important function of definition which consists in explaining the meaning of one man's assertion to another who finds it ambiguous. In an assertion, the words used are the only index to the notions in the assessor's mind—the only index explicit enough to be made a starting-point of definite inquiry. Those who desire an ex-

planation of the meaning of a familiar notion, such as that to which the word 'good' is in English the accepted verbal index, are never asking for the kind of vague general explanation which is all that a dictionary can give. What they are really asking for is the removal of an ambiguity which they have found in the word regarded as used in at least one context. And the quest for a 'definition' which shall fix all possible uses of a word—even if we disregard future ones—has a chance of succeeding only in the case of notions (like 'triangle') into which the endless differences of human personality do not appreciably enter.

This fourth character in the discussion might also find other remarks to make, I imagine he would agree that there is no way of explaining the word 'good' to a person wholly devoid of the notion, any more than the word 'green' can be explained to the colour-blind. But we know that there are totally colour-blind people; do we know that there are any *totally* devoid of the notion 'good'? *Defective* conceptions of it are perhaps common—if we set our standard high—just as common as defective vision of the finer shades of colour. But it seems a rash assumption to make about any human being that the notion of 'good' is wholly strange to him. May not the problem of explaining the notion (as we conceive it) to a person who needs the explanation be regarded rather as that of altering a notion already there than of supplying a sense which is absent?

Again, he might ask Leonard "what use is there in saying that 'good' means 'good' and nothing else?" What information is such a statement supposed to give? It answers no question about the nature of the Good, and removes no possible doubt. It amounts to a claim to use the word X without explaining even in the most sketchy manner your purpose in using it. Certainly, no one can be prevented from doing this, if it pleases him; but he must not be surprised if other people think that he might as well have saved himself the trouble of speaking. All description of X is necessarily in terms of something else, since predication is never more than the statement of an analogy.

However, this fourth character is not present, and the discussion is all the more realistic for his absence. It abounds in good sayings, often epigrammatic; and it rambles into side-paths just as discussions usually do. That its total outcome is a little hazy must be confessed. But in these matters, if anywhere, a hazy view may be justified. It is better, at least, than dogmatism. As Dr. Schiller remarks, in the Introduction which he has contributed to the book, "That every well-conducted reasoning inevitably starts and ends with certainty is the pathetic delusion of Formal Logic, and is manifestly false". In a poem at the end, Mr. Cooke has very suitably used the metre of Omar Khayyam in which to sum up the results of this delicate piece of work.

A. S.

Memories and Studies. By WILLIAM JAMES. London: Longmans, Green & Co. Pp. 411.

This is a collection of seventeen popular addresses and essays which, though they have all been already published, have not previously been very accessible. That they provide delightful reading need hardly be said, for James seems to have been constitutionally incapable of writing or speaking in an uninteresting way. For students of his philosophy the biographical studies, especially those on Agassiz, Thomas Davidson, Herbert Spencer and Frederick Myers, however slight in appearance some of them may be, have a peculiar value as illustrating the way in which James' democratic sympathies are wedded to an ardent belief in

the reality and preciousness of individual initiative. For him the truly democratic system is (or will be!) that which gives the fullest opportunity for human superiority to assert itself, and which suffers cranks gladly, as the unavoidable failures of Nature in her beneficent efforts towards the production of innovating genius. This conviction indeed runs like a connecting thread through these various essays, not by reason of selection on the part of the editor, but simply because it embodies the passionate protest of James' intellectual instinct against the indolent acceptance of the universe as a sort of vast museum-object, which we may contemplate as in a glass case darkly, but which we are strictly forbidden to touch. It is characteristic of James that he is not content to hold this conviction in a merely academic way, but seeks by its means to redeem the academic spirit. He conceives the special function of a university to be, not the production of a sense of our own superiority over the man in the street in realising the final "significance" of the Absolute and the absolute insignificance of man, but the cultivation of the sense for superiority in every walk of life.

"The feeling for a good human job anywhere, the admiration of the really admirable, the disesteem of what is cheap and trashy and impermanent,—this is what we call the critical sense, the sense for ideal values. . . . The sense for human superiority ought, then, to be considered our line, as boring subways is the engineer's line, and the surgeon's is appendicitis" (pp. 314-315, in Essay XIII. on "The Social Value of the College-bred"). By consciously adopting this function the university will take a useful and honourable, instead of a merely dignified, place in the social structure. "We are only beginning in this country, with our extraordinary American reliance on organisation, to see that the alpha and omega in a university is the tone of it, and that this tone is set by human personalities exclusively. The world in fact is only beginning to see that the wealth of a nation consists more than in anything else in the number of superior men that it harbours. In the practical realm it has always recognised this, and known that no price is too high to pay for a great statesman or great captain of industry. But it is equally so in the religious and moral sphere, in the poetic and artistic sphere and in the philosophic and scientific sphere. . . . Who can measure the effects on the national German soul of the splendid series of German poets and German men of learning, most of them academic personages? From the bare economic point of view the importance of geniuses is only beginning to be appreciated. How can we measure the cash-value to France of a Pasteur, to England of a Kelvin, to Germany of an Ostwald, to us here of a Burbank? One main care of every country in the future ought to be to find out who its first-rate thinkers are and to help them. . . . And as the universities are already a sort of agency providentially provided for the detection and encouragement of mental superiority, it would seem as if that one among them that followed this line most successfully would quickest rise to a position of paramountcy and distinction" (pp. 362-364 in three essays on "The University and the Individual").

Apart from the line of thought above dwelt on, of special interest to philosophers—provided they are not of the sort that not having learnt any psychology have yet learnt to despise it—are Essays VII. ("Frederick Myers' Services to Psychology"), VIII. ("Final Impressions of a Psychological Researcher"), IX. ("On Some Mental Effects of the Earthquake"), XV. ("A Pluralistic Mystic"). Essay IX. will assuredly prove not more interesting to the professed psychologist than to the veriest Gallio of novel-readers. The first news of the great San Francisco earthquake, which James witnessed, caused consternation among his friends, who knew of his unsatisfactory state of health at the time. But James, it

seems, had been having the time of his life. And in his after-reflections on the whole experience, very penetrating is the observation, "Surely the cutting edge of all our usual misfortunes comes from their character of loneliness. We lose our health, our wife or children die, our house burns down, or our money is made away with, and the world goes on rejoicing, leaving us on one side and counting us out from all its business. In California every one, to some degree, was suffering, and one's private miseries were merged in the vast general sum of privation and in the all-absorbing practical problem of general recuperation. The cheerfulness, or, at any rate, the steadfastness of tone, was universal" (pp. 224-225).

Among many interesting points, incidentally touched on in the book, attention may be specially directed to the criticism of "rot" or "pure bosh," as a category (pp. 153 and 191-194); in connexion with fraud in scientific "demonstrations," to the delightful confession of how "I have myself cheated shamelessly" (pp. 181-183); and to the suggestion as to the possibility of a "continuum of cosmic consciousness" (pp. 204-206). It must be noted that with James this last hypothesis functions, not as an excuse for treating the individual consciousness as of no account, but as directing active inquiry into such problems as "What are the conditions of individuation or insulation in this mother-sea?" (p. 205).

HOWARD V. KNOX.

Signifies and Language: the Articulate Form of Our Expressive and Interpretive Resources. By V. WELBY. Published by McMillan & Co. Pp. x, 105.

It is depressing to consider that the lamented death of Lady Welby renders the present little book the last contribution that she will be able to make to the new science of *Signifies* at the foundation of which she laboured so enthusiastically and with such faith in the value of its ultimate results.

The work under review consists of a number of short essays written at various times but all connected by a common purpose. That purpose seems to be rather to show the necessity of a reform in our modes of expression and the valuable results that would follow from it than to indicate precisely how such a reform is to be accomplished. The burden of nearly all the essays is the use and abuse of metaphor. Lady Welby did not want to abolish metaphor nor was her ideal a scientific nomenclature like that discussed by Mill in his *Logic*. Nor would Leibniz's *Scientia Generalis* with the philosophic language and the encyclopedias so happily arranged that rival philosophers had only to appoint umpires, take pencil and paper, and say 'Calculus,' quite coincide with what she desiderated. She recognised that it is quite essential that words should be used in more than one sense and she regarded metaphor if only it were appropriate as a valuable way of expressing meaning. But she complains that most of our common metaphors suggest ideas that were once believed to be true but are now known not to be so. Hence ambiguity, needless labour in deciding how far a metaphor is to be pressed, and practical certainty of erroneous suggestions. When *Signifies* has really been studied we shall no longer leave language to develop haphazard and every writer will take care to use only metaphors that will bear pressing and every reader will know how to appreciate and understand what is thus expressed. But how this happy result is to be accomplished we are not told in the present work.

Lady Welby is especially severe on the metaphor of 'ground,' and has an amusing discussion of what precisely a man means who says: 'I take

my stand on this fact'. One feels that she would have enjoyed Lowell's neat effect produced by taking this metaphor literally :—

'Here we stand on the Constitution, by Thunder,
It's a fact of which there's bushels of proofs.
How d'you suppose we could trample it under
If we hadn't it always under our hoofs?'

The reformation desired by Lady Welby was not to extend solely to language. Gesture was also to be systematised and we were to try and regain some of the senses that are present in animals and savage men but only rudimentary in us.

C. D. BROAD.

Priests, Philosophers and Prophets. By THOMAS WHITTAKER. London: Adam & Charles Black, 1911.

In the sub-title this book is described as "a dissertation on revealed religion"; and in his preliminary chapter the author classifies religions into natural or spontaneous religions on the one hand, and on the other organised and "revealed" religions, which have been "carried to a more self-conscious stage". His thesis is that "the revealed religions of the West were, from the first, constructed religions," the result, that is, of the working "of a general idea that was the result of reflexion, when the growth of the organised natural religions had been completed from within". Among such Western religions he includes those of Zoroaster, of the Jews, and of Mahomet, as well as Christianity. All these were generated by a "combination of the speculative idea" of ethical monotheism "with a pre-existing national cult by a priestly aristocracy".

There follow chapters on the "Rise of monotheism," on "Greece and philosophical theism," on "The Persians and the Jews," which are well written summaries, but hardly more than that, of current learning on those subjects. By far the best written and most original chapter in the work is the tenth and last entitled "the new era". In it he points out that "theism, with a tendency to pass into pantheism, can really claim a pretty wide consensus. And its earliest and latest phases prove it to be quite detachable from the revealed religions. It is not a residue of these, but, if I am right, the idea under which they were formed, disentangled at last from a factitious union." In the few pages which follow are thrown out some interesting thoughts with regard to the existence in or behind the universe of a moral order; and one regrets that more space was not accorded to these speculations, for the chapters (vi.-viii.) on the Jewish Law and the Prophets, on the Christian era, and on Christianity and Philosophy might very well have been left out, especially the middle one of these in which the author takes his inspiration from the School of Drews, W. B. Smith, and van Manen. It is a disconcerting symptom of the sciolism rampant in connexion with the study of Christian origins that one so well informed in general as Mr. Whittaker should attach any importance to the ludicrous equations and arguments by which Mr. J. M. Robertson has attempted to disprove the historical reality of Jesus of Nazareth.

FRED. C. CONYBEARE.

Die Soziologischen Theorien. Von Dr. FAUSTO SQUILLACE. Deutsch von Dr. RUDOLF FISLER. Verlag von Dr. Werner Klinkhardt. Leipzig, 1911. Price, M.7.50.

This is a rather carelessly printed translation of a book which is not likely to find many readers in this country. The whole subject of Sociology is here reckoned too suspect for a series of short bibliographical notes upon an endless number of sociological writers, many of whom are quite unknown to fame, to prove generally interesting. Anthropology, on the other hand, which on its social side affords a sort of substitute for Continental sociology amongst British thinkers, is in the present handbook dismissed briefly in a footnote which declares that the existing peoples of the lower culture are, as likely as not, degenerates, and can therefore throw little or no light on the evolution of mankind. Meanwhile, the classification of sociological theories proposed by Dr. Squillace is not without a certain value and significance, inasmuch as it proves that the leading sociologists fall into groups, each of which allies itself to some already constituted science, mechanics, biology, psychology, or what not, and tries to explain human history more or less exclusively in terms of the laws of that single science as extended by analogy. On this showing a sociologist might almost be defined as a historian of one idea. If the hybrid name invented by Comte is to continue to stand for the science of man, at least must the sociology of the future place comprehensiveness of view above the facile simplification which is always to be obtained by ignoring as irrelevant the facts that do not happen to square with your pet theory.

M.

Free Will and Human Responsibility. By H. H. HORNE. New York : The Macmillan Company. Pp. xvi, 191.

In the opening paragraph of the fourth chapter the author says that 'in presenting these arguments our purpose is to be succinct, systematic, comprehensive and as convincing as the case allows'. In the first three aspects he is reasonably successful. But there was little need for the hesitation that the fourth implies. His conclusion is only that we are determined in some of our actions but that in others our volition and initiative make a difference to the world. Most determinists would admit as much and still remain determinists. Indeed, so far as one can see, only materialism and Oriental fatalism are definitely ruled out.

The author's method consciously follows the rules of a debating society. The determinist speaks first, is answered, and then the libertarian has his say. The Chairman opens the debate with a historical sketch and a definition of the issue. The first is interesting but might have been more accurate. It is hard to call Berkeley a subjective idealist without further parley, and very rash to speak of Aristotle as a convinced libertarian on the strength of his definition of *προαιερισ*. As to the second it is sufficiently clear but it would have been well if the reader had been told more frequently which of the twelve senses of freedom is used in the different arguments where the word occurs.

J. LAIRD.

A Beginner's History of Philosophy. By H. E. CUSHMAN. Vol. i: *Ancient and Mediæval Philosophy*, pp. xx, 406. Vol. ii: *Modern Philosophy*, pp. xvii, 377. Boston: Houghton, Mifflin Co., 1911. Price, per volume, \$1.60 net.

The author of this work seeks, by the aid of maps, section-headings, systematic and schematic presentation, and occasional summaries and tables, to convince us that "the only 'memory-hooks' upon which the teacher may expect to hang philosophical doctrines are the student's ideas of history, literature, and geography". The point is arguable; but there can be no doubt that Mr. Cushman has produced an interesting text. The first half of the first volume, which treats of the early Greek philosophers, is excellent, both in matter and in form. The transition from ancient to mediæval philosophy is successfully accomplished. In the second volume, which deals with modern philosophy, the course of the exposition is more hurried; only Locke, Leibniz, and Kant receive anything like adequate treatment. The two most serious defects of the volume appear to the reviewer to be the underestimation of Hegel, and the neglect to introduce the student to current philosophical theory; no mention is made of Bergson, Bradley, Green or Royce.

C. A. RUCKMICH.

Le Fonctionnisme Universel. Monde Moral: L'ordre des fins et des progrès. Par HENRY LAGRÉSILLE. Paris: Librairie Fischbacher. Pp. 517.

This book is written by one of the initiated, but we may venture to say, greatly daring, that it can be read with interest, and sometimes with profit, by those who are not of their number. It is the third in the ambitious series called *Le Fonctionnisme Universel*, its two predecessors having already appeared under the titles of *Monde Sensible* and *Monde Psychique* respectively. Morality, the active progress of reason in pursuit of that which alone has true worth, is the fitting culmination of the trilogy.

It is needless, in this place, to do more than sketch the argument. Morality deals with voluntary activity but its real foundation is the effort of Reason towards an impersonal unity, a life in the soul of the world where private differences and discords disappear: 'a universal religion without priests, a superterrestrial socialism among incarnate and discarnate souls'. The ideal of the Good itself is the seal which the Logos has stamped upon man. Reason impels him through love, and love is better understood '*lorsqu'on a fréquenté les désincarnées*'.

The most important concepts of ethics are those of conscious function and of progress. The good life is the internal law of progress in the universe: its reward is to live this life yet more abundantly. Progress is guarded and guaranteed by the inexorable law of Karma and its fruits are seen in the progressive purification of souls during their successive incarnations. Many centuries are needed to make a soul and the rise of a society of worthy souls is just the history of morality.

The book teems with quotations from the great masters of the wisdom of life. Buddha and Christ and the apostles have much to tell us. So have Mrs. Besant and Stainton Moses. The shade of Rousseau makes a trite reflexion, the spirit of Victor Hugo has supplied some commonplace verse.

J. LAIRD.

Das Erkenntnisproblem in der Philosophie und Wissenschaft der neueren Zeit. IIter Band. 2te durchgesehene Auflage. Von ERNST CASSIRER. Berlin: Verlag Bruno Cassirer, 1911. Pp. xv, 832.

The second volume of this revision has followed with commendable promptitude upon the first. It contains the promised and much-needed index extending to sixty-eight pages. There has been some recasting in the direction of the chronological order. Bacon, Gassendi and Hobbes now precede Spinoza and Leibniz in a book to themselves. Of British writers of a non-empirical tendency only Reid and the Scottish school still occupy the original place of the whole group in a sort of appended note to Hume. The rest now find treatment in a special chapter of the book dealing with the progress and culmination of rationalism, a great gain, though it still leaves the position of, for instance, Herbert of Cherbury, chronologically incongruous. The chapter on Gassendi has been rewritten. Dr. Cassirer now takes account of other influences upon Gassendi than Epicurean atomism, a scholastic Aristotelian factor, for example, for which he refers to Pendzig, and the Italian nature-philosophy of the renaissance. He gives more attention to Gassendi's views of space, time, and motion in relation to the scientific speculation of the time. In suggesting, as against Riehl, that the relation between Locke and Newton's views of space is not one of direct influence but due to the effect of Gassendi upon both, Dr. Cassirer offers an ingenious way out of what were otherwise a difficult chronological puzzle. It is a pity that he is apparently still not cognisant of the dialectical or anti-Eleatic motive for the atomism of Leucippus and Democritus.

In the larger portion of the volume, there seems to be little or no important change. With its sure touch in regard to the scientific as well as the philosophic forerunners of Kant, it strikes the same note, gives the same impression, of necessity and indispensableness as before. It has, however, been enriched by addition and modification on a minor scale, as, e.g., in the notes on pp. 608 *sq.*, where the criticisms of Nelson on the author's view of the extent of Hume's influence upon Kant manifested in 'Dreams of a Ghostseer' are considered and met, or again in the use made of Haering, *Der Duisburgsche Nachlass und Kants Kritizismus um 1775*. Dr. Cassirer's book may confidently be pressed upon the consideration of all serious students of the philosophic problem as it arises out of the sciences.

H. W. BLUNT.

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VIII.—PHILOSOPHICAL PERIODICALS.

PSYCHOLOGICAL REVIEW. Vol. xviii., No. 4. **D. Starch.** 'Unconscious Imitation in Handwriting.' [About 100 persons wrote from typewritten copy, and from script of three kinds: vertical, slanting, large. A few cases of intentional imitation or divergence were ruled out. All the other subjects gave evidence of unconscious imitation; if there were no change of inclination, there was change of size; large amount of change in slant meant also large increase in size. Women are more suggestible than men.] **F. L. Wells.** 'A Preliminary Note on the Categories of Association Reactions.' [The examination of some 5,000 reactions yielded a system of classification which has held, with trifling modification, for 6,000 more. The categories recommended are five: egocentric, conditioned by a special subjectivity of attitude to the stimulus; superordinate, or individual-genus reactions; contrast, or associations by opposites; miscellaneous, covering the remainder of the 'internal' associations; and speech-habit.] **H. L. Hollingworth.** 'Judgments of Persuasiveness.' [A set of fifty abstract advertisements, appealing each to some particular interest, instinct, or line of argument, was laid once or twice before thirty women and twenty men, who were asked to arrange them in order of persuasiveness. The judgment of persuasiveness proves to be measurable; it shows characteristic constancies and tendencies from individual to individual and from group to group; moreover, the measurements tally with the results obtained by actual advertising. Men agree more closely in their preferences, and women in their dislikes; women as a group are more homogeneous when judging the strength of personal appeals, men when judging that of social appeals. The final orders of strength of appeal, as judged by random groups of observers, correlate with one another with a constant co-efficient of +.60. Other statistical values are given in the paper.] From the University of California Psychological Laboratory. **J. M. Brewer.** 'xiv. The Psychology of Change: On Some Phases of Minimal Time by Sight.' [Report of experiments with spatially separate lights. The limen of movement is lower than that of discrete sequence. Yet there is a regular reduction of the limen for succession as the visual angle is reduced; and, if we take the most favourable conditions afforded by the experiment, the two limens, of movement and of succession, prove to be 25° and 30° respectively, i.e., are far more closely approximated than in previous work on the subject.] **G. M. Stratton.** 'xv. The Psychology of Change: How is the Perception of Movement Related to that of Succession?' [Report of experiments with spatially juxtaposed lights. Practised observers can, under these conditions, perceive mere succession earlier than motion; lights only 5° apart may be judged successive in 80 per cent. of a series of trials. The two consciousnesses "are intimately conjoined, the judgment of motion being a further specification (more complex, and yet easier) of the judgment of sequence. The judgment of motion has a certain priority, in the sense that it is both more complex and also more readily performed; the judgment of succession, however, has its own priority, inasmuch as it is the simpler, and requires a less lasting stimulation to evoke it." Conscious succession and conscious movement are rather perceptions

than either sensations or judgments; as sensory organisations at a level at which no physical 'thing' has been caught, they may be termed infra-percepts.]

THE INTERNATIONAL JOURNAL OF ETHICS. Vol. xxii., No. 2, January, 1912. **R. M. MacIver.** 'War and Civilisation.' [When, as in former times, society and state were identical, and each state was isolated and alien to every other, then war was intelligible. To-day the state is less than society, nor is it isolated. Indeed social community in trade, letters and religion extends beyond political boundaries, and gives the real and only possible basis for a true society of civilisation (not cosmopolitan, but keeping each state in its proper sphere). International law follows the same course of development as law within the state, and something may be done, even now, to show a recognition of the changed aspect of affairs.] **Harrold Johnson.** 'The Problem of an Effective Moral Education in Schools.' [The experience of France shows that a lay education in morals referred at first only to generally accepted moral intuitions, but gradually became more obviously rationalistic and anti-religious. It shows also that no non-religious doctrine can yield the necessary sense of obligation to self-sacrifice and the attainment of human perfection. The author agrees with M. Delvolvé that some more religious attitude is involved,—an emotional acceptance of the unity and worth of the universe,—though this, unlike most established religions, must not be at odds with science.] **G. R. S. Mead.** 'The Doctrine of Reincarnation.' [The wider theory of pre-existence has been supposed to throw light on the problem of evil by Origen and others, though their view paid insufficient attention to moral development. Pythagoreanism, Buddhism and Brahmanism treat of the narrower theory of reincarnation and the doctrine of *karma* in the two latter has some bearing on the question. A positive theory is possible. It may be that real struggle can take place only on earth. If the soul is purified at death it may, on its return, be better able to bring the conflict to a successful issue.] **Horace M. Kallen.** 'The Essence of Tragedy.' [Classicism and Romanticism fail to distinguish tragedy from comedy and from horror. The essence of tragedy is a stern conflict between value and value. This theory may be called pragmatic.] **G. A. Barrow.** 'Liberalism and Orthodoxy.' [A half-way house between liberalism and orthodoxy is impossible for theological thought. But the Liberal only is truly orthodox, for he is concerned with the fundamental metaphysical problems which puzzled the Greeks. Later heresy, through the influence of the Roman mind, referred to questions of morals and Church government only.] **Book Reviews.** List of books received.—Vol. xxii., No. 3, April, 1912. **The Bishop of Tasmania.** 'A Plea for an Honest Casuistry.' [The moral law is no fixed and rigid set of flats arranged in tabular form and claiming literal obedience. Therefore casuistry is essential. As long as man is in the making, as long as there are discrepancies in the estimation of values, as long as special professions require special codes, or manners or 'accommodation' can be justified, so long is there need for casuistry.] **A. T. Cadoux.** 'The Implications of the Golden Rule.' [Objections raised to the universality of the golden rule by Kant, Sidgwick and others are either unfounded or due to a misunderstanding of its real character. Though it seems to start with apparently given desires it leads to a modification of these desires, (1) by way of increase, (2) by way of subordination to a complete system.] **Sitanath Tattvabhushan.** 'Ethical Science among the Hindus.' [The sacred writings of the Hindus really contain an ethical system. As against hedonism they maintain that the only true bliss is to be found in the Absolute. We find in the writings of Jaimini substantially the same stage of ethical thought as in

those of Kant. But, unlike Kant, the Gita doctrine of 'nishkama karma' while extolling a purified desire, does not eradicate desire altogether.] **E. W. Hirst.** 'Morality as Inter-Personal.' [The single thought cannot be moral nor can the isolated self. Practice requires co-ordination of mind and also a relation to others. Genetic and other considerations lead us to seek the ethical end through the consideration of Einfühlung.] **E. M. White.** 'The Woman-Soul.' [A comparison of the mental characteristics and character of man and woman. Woman's long bondage has resulted in the acquisition of graces of tenderness and quick intuition which she can never lose. Infants are really nearer to the type of humanity than adults, and women are liker infants than men. Therefore, . . . ?] **Henry Neumann.** 'Some Misconceptions of Moral Education.' [Moral education in schools, if the term be properly understood and not confused with ethical science, is useful, indeed necessary. Children do think about principles, and should be taught to think a little, (but not too much) more. The tone of the school is raised if the moral emotions are strengthened, as they may be by citing noble examples.] Book Reviews. List of books received.

JOURNAL OF PHILOSOPHY, PSYCHOLOGY AND SCIENTIFIC METHODS. viii., 21. **A. Mitchell.** 'The Logical Implication of Matter in the Definition of Consciousness.' ["Consciousness is the inversion or reciprocal aspect of organic activity, virtual, in distinction from externalised or real, activity."] **E. G. Spaulding,** ('Reply'), and **J. Dewey.** 'Joint Discussion with Articles of Agreement and Disagreement.' [S. disclaims charge of deciding questions of fact by manipulating concepts and asks for a decisive proof that knowing alters its objects. In the joint discussion, which is far from lucid, D. insists that 'subsistents' are only the existents referred to modified, but agrees that 'propositions' 'state the truth' about existents or subsistents. As this definition abstracts from the possible falsity of propositions and so confines itself to formal 'truth,' it would seem that D. had tacitly conceded the right to discuss the 'truth' of propositions without reference to their application.]—viii., 22. **A. O. Lovejoy.** 'Reflections of a Temporalist on the New Realism.' [A well-written paper showing that as the new realism cannot admit that "any perception can be false or illusory at the time when it occurs," it cannot explain what is meant by hallucination, illusion, error or "purely subjective existence," which are, in fact, the phenomena which engender common-sense realism.] **E. K. Strong.** 'Application of the "Order of Merit Method" to Advertising.' [Finds that women are more attracted by irrelevant 'cuts,' while men prefer 'copy ads.'] **M. W. Calkins.** 'Defective Logic in the Discussion of Religious Experience.' [Criticises E. S. Ames's *Psychology of Religious Experience*.]—viii., 23. **H. M. Kallen.** 'Pragmatism and Its "Principles".' [Starting as a review of Bawden's books, which he repudiates as Pragmatism, K.'s article develops into a discussion of the interrelations of the genuine types, James's, Schiller's, Dewey's and Santayana's. Pragmatism is, however, conceived not as a logic but as a metaphysic—"reality is flux".]—viii., 24. **H. H. Bawden.** 'Art and Industry.' ["Beauty is only a higher usefulness—utility seen at arm's length."] **S. N. Patten.** 'Pragmatism and Social Science.' ["Pragmatism, sociology, economics and history are not distinct sciences, but merely different ways of looking at the same facts. . . . They all must accept consequences as the ultimate test of truth, and these consequences are measured in 'the same broad field of social endeavour'."] **A. O. Lovejoy.** 'Existence and Formal Logic.' [Points out, against Marvin (viii., 18), that Formal Logic has nothing to say about existence.]—viii., 25.

R. B. Perry. 'Notes on the Philosophy of Henri Bergson.—I.' [Regards it as the most anti-intellectualist of pragmatisms, but as a "vicious immediatism".] **W. B. Pitkin.** 'Philosophy and the Flatfish.' [What the former could learn from the latter's capacity to adapt themselves to the patterns of their backgrounds.] **H. L. Hollingworth.** 'Vicarious Functioning of Irrelevant Imagery.' [As vehicles of relational feelings.] —viii., 26. 'Report of the Committee on Definitions of the American Philosophical Association.' [On the relation of objects to consciousness in sense-perception.] **C. Ladd-Franklin.** 'The Foundations of Philosophy: Explicit Primitives.' [I.e., undefinables should be avowed.] **R. B. Perry.** 'Notes on the Philosophy of Henri Bergson.—II.' [On his indeterminism and dynamism: argues that to assume in man "an indeterminate, incalculable and creative power to do . . . destroys the originality and distinction of pragmatism and allies it with romanticism, mysticism and irrationalism."—ix., 1. **J. E. Boodin.** 'Do Things Exist?' [Yes, as "the sensible embodiments of purposes," as "energies which we must recognise as belonging to a space context of their own".] **E. A. Singer.** 'Consciousness and Behaviour.' [A reply to Dickinson Miller in viii., 12.] **J. Dewey.** 'A Reply to Prof. McGilvary's Questions' (in viii., 17). [They all rest on misapprehensions.] —ix., 2. **J. W. Hudson.** 'Aims and Methods of Introduction Courses.' [In Philosophy: a questionnaire. There is no agreement among teachers.] **W. P. Montague.** 'The New Realism and the Old.' ["The new realism is almost identical with naïve realism" but its "first and greatest problem is to amend" it so as "to make it compatible with the universal phenomenon of error and with the mechanism of perception"—but here comes an abrupt stop.] **J. Pikler.** 'Opposition as Condition of Consciousness.' [Replies to a review.] —ix., 3. **J. W. Bridges.** 'Doctrine of Specific Nerve Energies.' [Criticises McDougall's form of the doctrine on Wundtian lines.] **E. L. Hicks.** 'Is Inversion a Valid Inference?' [No, because it goes beyond the evidence, and involves illicit process.] **H. L. Hollingworth.** 'New York Branch of the American Psychological Association.' —ix., 4. **J. Royce.** 'On Definitions and Debates.' [Criticises the Committee's definitions as to 'the Relations of Consciousness and Object in Sense-Perception,' cf. viii., 26. It is shown that they ruled out "various mystics, scholastics, Kantians, idealists, modern realists and pragmatists": but what is proved is probably only that the Committee was not representative rather than that definitions are impossible in philosophy.] **H. A. Overstreet.** 'Eleventh Annual Meeting of the American Philosophical Association.' —ix., 5. **N. K. Smith.** 'The Problem of Knowledge.' [Demands that a satisfactory theory of knowledge shall "be at once realistic, phenomenalist and individualistic," and ends by denying, against Dewey, that the knowing process can be an event, that it is not unique and non-natural, and that it can be described merely from the standpoint of man's animal organism.] **J. E. Russell.** 'Bergson's Anti-Intellectualism.' [R. B. Perry's criticisms in viii., 25, 26, are inconclusive.] —ix., 6. **B. H. Bode.** 'The Concept of Immediacy.' ["One of the chief merits of the 'Critique of Pure Reason' is that it is a *reductio ad absurdum* of its premises"; it starts with relationless sensations, invokes a transcendental synthesis to explain them, and concludes that they are fictions. The same reasoning is shown to persist in Bradley, Bosanquet and Royce, but the solution of the problem lies in functionalism, not in objective idealism.] **D. Drake.** 'What kind of Realism?' [Realists should realise that they have to solve the problem of *how* our perceptions are related to the real things and to the brain-changes.] **W. Fite.** 'Explicit Primitives: a Reply to Mrs. Franklin.' [Cf. viii., 26. Shows that "an explicit primitive is a contradiction in terms".] —ix., 7. **J. K. Hart.** 'The Relations of

Individual and Experimental Psychology to Social Psychology.' [Experimental psychology originated in the attempts of astronomers to improve their observations by correcting the 'personal equation'; but "if psychology is to become a real science in its own right it must become social," and get the concrete social self as its object of knowledge.] **M. E. Haggerty.** 'The Twentieth Meeting of the American Psychological Association.' [Mentions at the end that the International Congress for 1913 is abandoned.]—ix., 8. **K. Schmidt.** 'Studies in the Structure of Systems. 1. The Separation of Problems.' [Insists on the importance of doing this, but does not explain how real problems are to be distinguished from bogus.] **R. Montgomery.** 'A Simple Method for the Study of Entoptic Phenomena.' [By "small silver beads strung on a wire in a spectacle frame".] **E. A. Singer.** 'On Mind as an Observable Object.' [Replies to criticisms of the paper in viii., 7.]

ZEITSCHRIFT FÜR PSYCHOLOGIE. Bd. lix., Heft 1 und 2. **M. Levy-Suhl.** 'Studien über die experimentelle Beeinflussung des Vorstellungsverlaufs, dritter Teil.' [Continued from vols. xlii., xlv. The author's method is indicated in *MIND*, 1907, 158; his classification of reactions *ibid.*, 1908, 296. The forty-four patients whose examination is here reported are grouped, according to its results, into four classes: Group i. shows a reactive attitude like that of the normal subject; Group ii. a general indifferent hyperprosexia (by this term Ziehen understands a pathological condition in which the attention is easily caught and as easily diverted, a combination of 'hypervigilancy' with 'hypotencacity'); Group iii. a selective hyperprosexia; and Group iv. a hypervigilant reaction with contamination (acceptance of the stimulus-word even if it reduces the current utterance to the merest nonsense) and dissociation (no associative connexion can be made out between the stimulus and the reaction evoked by it). These groups agree in the main with those of clinical diagnosis: thus the sixteen members of Group iii. all fall under the rubric of paranoia; the eleven typical members of Group ii. under those of mania (10) and of paranoia transitional to mania (1). The writer suggests, cautiously, that the exceptions may be due to faulty diagnosis, and that his psychological results may be of value for future prognosis and diagnosis; control experiments by others are needed.] **W. Sternberg.** 'Das Appetitproblem in der Physiologie und in der Psychologie.' [The importance of appetite, and the problem which it sets to physiology and psychology, have been misjudged and misunderstood by representatives of these and of other sciences. The attraction of appetite is not a chemical but a physical or mechanical force; the animal moves toward the appetising object, and responds to it specifically by movements of the mouth-parts (tongue, opening of mouth, seizing with teeth). The counterpart of this attraction is the repulsion of nausea. Sweets and weak bitters are appetising; bitters and intensive sweets are nauseating; the change in the effect of sweet, due to change in intensity, explains the many courses of our meals. Experiment is not adequate to the problem of appetite; recourse must also be had to racial experience, as embodied in history and language.] **O. Selz.** 'Willensakt und Temperament; eine Erwiderung auf N. Aehs Widerlegung.' *Literaturbericht*.—Bd. lix., Heft 3. **C. Stumpf.** 'Differenztöne und Konsonanz, II.' [Reply to Krueger and further criticism: the first paper appeared in vol. xxxix., Stumpf's own observations in lv.] **J. Dauber.** 'Ueber bevorzugte Assoziationem und verwandte Phänomene.' [It is known that, in experiments upon verbal association, a given stimulus-word may call out the same reaction-word from several reactors (preferred association). The writer shows that, similarly, different stimulus-words may call out the same reaction-word from the single reactor (repeated association). There is a direct relation

between preferred and repeated association, and also between both of these phenomena and the relative frequency of occurrence of the reaction-words in ordinary speech. Again, the oftener the stimulus-word occurs in ordinary speech, the larger is the number of (different) reaction-words that it calls out, and the larger also the number of (different) preferred associates; the most preferred associates are fewer (given by a smaller number of reactors) than is the case with stimuli of less frequent occurrence. In connexion with Jung's experiments on reproduction, the writer notes two points of interest: (1) isolated associations are more readily forgotten than preferred; and as isolated associations have also the longer reaction-time, both of Jung's distinguishing marks of a 'complex' are primarily conditioned by the phenomenon of preference; and (2) the oftener the stimulus-word occurs in ordinary speech, the poorer is the reproduction; here, too, therefore, is a fact that must be taken into account before Jung's interpretation is accepted. Experiments with nonsense syllables confirm and extend the results obtained in regard to preference. There is a strong tendency to reply to the stimulus by a real word, even if the reactor is definitely instructed to reply by utterance of a meaningless syllable.] *Literaturbericht.*—Bd. lix., Heft 4. **E. Huber.** 'Assoziations-versuche an Soldaten.' [A study of the verbal associations of 159 soldiers, undertaken partly as a complement to Reinhold's mass-experiments with school girls (*MIND*, xix, 452), partly in order to determine the influence of training and environment. The writer concludes that, in working out a comprehensive dictionary of associations, account must be taken of the details of environment, of the time spent in it, and of the educational status of the reactors. The soldiers give, for all the stimuli employed, fewer 'preferred' or 'favoured' associations than the schoolgirls; this result is connected with another, *viz.*, that the soldiers, as relatively uneducated persons, give a relatively large number of 'internal' associations; 'external' associations are more often 'favoured' because they are likely to be effected more quickly and without the interpolation of conscious processes between stimulus and response. On the average, the soldiers reply oftener by adjectives and by a definition of the stimulus than do the schoolgirls.] *Literaturbericht.*—Bd. lix., Heft 5 und 6. **P. Stumpf.** 'Ueber die Abhängigkeit der visuellen Bewegungsempfindung und ihres negativen Nachbildes von den Reizvorgängen auf der Netzhaut: Vorläufige Mitteilung.' [Describes, in condensed form, the method and apparatus which have led the author to the formulation of general principles. (1) If, within certain spatial and temporal limits, the retina is subjected to two changes of excitation of the same kind (*e.g.*, to two paired stimuli whose components have the same spatial and temporal order black-white, black-white), then there arises primarily the sensation of a movement in the direction of the succession (towards white), and secondarily an after-image of movement in the opposite direction (towards black). (2) If conditions are so arranged that a given area of the retina should, by the first law, furnish movement-sensations of different directions at one and the same time, then there arises a movement-sensation in the direction of the resultant, and an after-image in the opposite direction. (3) If paired stimuli (colours or lights) are equated in luminosity, there is no tendency to movement-sensation. If the repeated pairs are changed in kind (from black-white, black-white to black-white, white-black), the sensation of movement reverses in direction.] **W. Koehler,** mit Unterstützung von **H. C. Warren.** 'Bibliographie der deutschen und ausländischen Literatur des Jahres 1910, über Psychologie, ihre Hilfswissenschaften und Grenzgebiete.' [2548 titles, as against 3186 of the corresponding *Index*, and 3132 of the bibliography for 1909.]

"SCIENTIA." REVISTA DI SCIENZA. Vol. ix., Anno v., 1911. No. xviii. **F. Enriques.** 'Il problema della realtà.' [Inaugural address delivered before the fourth International Congress of Philosophy held at Bologna in 1911.] **H. Poincaré.** 'L'évolution des lois.' [Reflexions on the question as to whether the laws of Nature themselves can change in time. The question as to whether the laws considered as existing outside the mind which creates them or which observes them are constant in themselves is not only insoluble, but meaningless.] **G. Celoria.** 'L'operadi Giovanni Schiaparelli.' **L. De Marchi.** 'Nuove teorie sulle cause dell'era glaciale.' **E. S. Russell.** 'Vitalism.' [One may be an adherent of Neo-Vitalism, or of the mechanistic theory; but there is a third attitude possible: one may concede the universal validity of physical and chemical laws and yet hold that the laws of biology cannot be reduced to their level. "All vital activities can conceivably be analysed into a particular combination in space and time of processes each of which is explicable by physical and chemical laws; but it does not follow that the combination of these processes is itself explained by the laws which explain each single process."] **Ch. S. Sherrington.** 'The rôle of reflex inhibition.' [A physiological article.] **W. Ostwald.** 'Der Wille und seine physische Grundlegung.' [An application of the science of Energetics.] **I. Fisher.** 'The "Impatience Theory" of Interest: a Study of the Causes determining the Rate of Interest.' [The rate of interest is not a narrow technical phenomenon, but touches the daily life of us all, and *impatience* is fundamental. The theory is that more fully contained in the author's book, *The Rate of Interest* (New York and London, 1907).] **A. Meillet.** 'Différenciation et unification dans les langues.' **S. Arrhenius.** 'Über den Ursprung des Gestrirnkultus.' [Discussion of why, in all higher religions, the gods are regarded as being of "celestial" origin; this fact is certainly connected with the widely-spread worship of the heavenly bodies.] **A. Fraenckel.** 'Le calcul de la date de Pâques.' Book Reviews. General Reviews (Geology, Biology, Economy). Review of Reviews. Chronicle.—No. xix. **N. Herz.** 'Philosophische Konzeption und mathematische Analyse in der Weltbetrachtung.' [Philosophical conception and mathematical analysis are both essential to science, and, for progress, must work together harmoniously.] **P. Langevin.** 'L'évolution de l'espace et du temps.' [Our fundamental notions of space and time have evolved, and have gradually adapted themselves to new experiences. Hitherto, our space and time have been those required by theoretical mechanics, and, to the new and powerful synthesis represented by the electromagnetic theory of physical phenomena, correspond a different time and space.] **G. Bruri.** 'L'opera di J. H. van't Hoff.' [Of chemical and physico-chemical interest.] **J. Costantin.** 'Les progrès de la culture des fleurs et leur importance pour les théories transformistes.' [Scientific aspects of the culture of orchids.] **R. Pearl.** 'Biometric Ideas and Methods in Biology: Their Significance and Limitations.' [Biometry, founded by Karl Pearson in 1895, is an exceedingly valuable method of research, but the early workers in it sometimes misconceived what mathematical methods could do, mistook it for a school of biological philosophy, and did superficial work. The author's object is to help along a better understanding of and greater sympathy towards biometric work.] **P. K. v. Engelmeyer.** 'Heurologischer Wert der technischen Erfindung.' [Technical invention is much more accessible to heurological analysis than works of art.] **M. Hørnes.** 'Die ältesten Formen der menschlichen Behausung und ihr Zusammenhang mit der allgemeinen Kulturentwicklung.' **S. Perozzi.** 'Socialismo giuridico.' **F. Enriques.** 'La philosophie de Giovanni Vailati.' Book reviews. General reviews (Astronomy, Sociology). Review of reviews. Chronicle.

IX.—NOTES.

DEAR SIR,—

In No. 82 of *MIND*, Mr. J. J. Maxwell has stated that, in my review of Prof. Natorp's book in No. 80 of *MIND*, I ignored the main purpose of the book which he believed to contain: "The first real attempt to rest mathematics on a logical basis, broad enough to obviate the necessity of all 'generalisations of number' so that negative and fractional numbers, the irrational, the transfinite and the imaginary are all, as it were, implicated from the beginning"; and: "There is no hint of this attempt, to say nothing of any estimate of its success or failure, in the review in question. The writer confines himself largely to the historical and critical discussions which serve merely to illustrate the main theses of the work, and a reader of the review unacquainted with the original might be forgiven if he mistook these digressions for the substantive part of the book."

The attempt mentioned was, it seems to me, first made by Frege in 1884, and has since often been made by other mathematicians who busy themselves with the principles of mathematics. The parts of my review which Mr. Maxwell criticises are concerned with pointing out that Prof. Natorp's quite misunderstood Frege.

Mr. Maxwell seems to maintain that Prof. Natorp's general position does not suggest that he does not, on page 120, object to Frege's definition of identity on the ground that the word "two" occurs in it—a defect in language, which is not present in logical symbolism. I need only remark that Natorp, in the passage referred to, gives the number-words all the emphasis of marks of exclamation and spaced type. Here is the passage: "Man könnte etwa sagen: die Zahleinheit sei die Umfangsbestimmung, welche der Inhaltsbestimmung der Identität entspricht. In der bei den Schullogikern beliebten graphischen Darstellung begrifflicher Verhältnisse wird der Fall der Identität zweier (!) Begriffe veranschaulicht durch das Zusammenfallen zweier (!) Kreise, durch das sie in der Tat—vielmehr einer werden. Interessant ist hierbei, dass von der Zweiheit ausgegangen, die (der Identität entsprechende) Einheit also als Grenzfall der verschwindenden Zweiheit (die eben mit der Verschiedenheit verschwindet) aufgestellt wird. Im Grunde ist es bei Frege dasselbe: die *zwei* Dinge *a* und *b* werden der Zahl nach eines im Falle ihrer Identität. Frege merkt gar nicht, dass er also die Zweiheit voraussetzt und die Einheit zu einem besonderen Fall, einem Grenzfall der Zweiheit macht; während er sich sonst gewiss darüber klar ist, dass vielmehr die Zweiheit nur unter Voraussetzung der Einheit aufgestellt werden kann."

It may be added that Couturat expressly abandoned, in his *Principes des Mathématiques* (Paris, 1905, pp. vii, 26-27, etc.), the position that he had formerly held of the notion of *unity* being a preliminary to arithmetic.

I cannot see that Prof. Natorp has proved that Frege is a nominalist,

and I certainly think that Natorp's saying that Frege is so would rouse any one's suspicions, considering Frege's often-expressed opinions on this point, in the way complained of by Mr. Maxwell. Of course a conclusion would be unsafe: obviously I did not mean it to be anything more than a guess. If this guess had turned out to be wrong it would have been negligible; as it was right it is "unkind".

I cannot agree that "the number is continuous". For: (1) there is more than one number; (2) no number is continuous; (3) the series of integer numbers is not continuous, nor is an integer or a rational even part of a series which is continuous. The series of what are called "real numbers" is continuous; but real numbers are derivative, though, in a sense, "implicated from the beginning".

Prof. Natorp was not the first investigator in the direction indicated by Mr. Maxwell. He has printed mis-statements about the well-grounded work of predecessors who seem to have reached what Natorp perhaps was aiming at. That Natorp's whole position may be inconsistent with the statements to which I have referred in my review (and I have verified the accuracy of those references), I admit may be the case. But, unfortunately, I had no other means of forming an opinion on Prof. Natorp's book than by reading it and trying to understand it.

Yours faithfully,

PHILIP E. B. JOURDAIN.

THE LODGE, GIRTON, CAMBRIDGE,
May 16, 1912.

PRAGMATISM AND THE DICTUM "ALL TRUTHS WORK".

On more than one occasion Dr. Schiller has protested against the assumption, made by critics of the pragmatic theory of truth, that the dictum "All truths work" can be converted *simpliciter* into "All that works is true". His latest and most explicit rejection of this—to use his own phrase—"grotesque conversion" was made in his paper on "Error," read at the International Congress of Philosophy at Bologna in May, 1911, and subsequently before the Aristotelian Society.¹

In reply to this protest it may be noted:—

(1) That the contention shows that pragmatism entirely fails to provide any criterion for distinguishing "truth" from "error". But it is the peculiar claim of pragmatism that it does provide such a criterion.

(2) That the whole significance of pragmatism as a theory of truth, and its claim to both novelty and importance, rests upon the possibility of this conversion. That "all truths work," i.e., are satisfactory from some point of view, no one would contest. The difficulty is to distinguish these "truths" from those other "truth-claims" which satisfy some purpose, but are found not to be "true". If, from the fact that "all truths work," it does not follow that "all that works is true," then "working" can not be regarded as a test of truth. Pragmatism, therefore, fails just where its claims are greatest.

(3) That this conversion is (a) repeatedly made by James, and (b) assumed by Dr. Schiller.

(a) In "Pragmatism" (in Lecture VI., dealing with the "notion of truth") James says "it is useful because it is true" and "it is true because it is useful" "mean exactly the same thing, namely, that here is an idea that gets fulfilled and can be verified. True is the name for

¹ It is now published in the *Proceedings of the Aristotelian Society*, N.S., xi.

whatever idea starts the verification-process, useful is the name for its completed function in experience" (p. 204). It is true that a distinction has just been drawn between relevant ideas, which are of immediate use, and *irrelevant but true* ideas which are kept in "cold storage" until such time as they become "practically relevant to one of our emergencies". Only when they do this, does James seem here to equate the useful and the true, but he is dangerously near the border-line, and in *The Meaning of Truth* we find him explicitly stating the "grotesque conversion," namely, "what works is true and represents a reality, for the individual for whom it works" (p. 243).

(b) The conversion is assumed throughout by Dr. Schiller, as, indeed, we should expect, since it is the very essence of the pragmatist position. It is implied even in the paper on "Error," for Dr. Schiller says, "Truth-claims which have worked badly are condemned as 'errors,' even as those which have worked well are accepted as 'truths'".¹

It is not surprising, then, that critics of pragmatism have assumed this conversion as a *sine qua non* of the pragmatic theory of truth. Without it the pragmatic theory is both useless and irrelevant, or at best a truism; with it, according to Dr. Schiller's own showing, it is "grotesque".

L. S. STEBBING.

TO THE EDITOR OF "MIND".

May I repair an omission which I made in speaking at the Cambridge meeting of the Aristotelian Society yesterday? Dr. Nunn, who could not be present, had informed me that he thought my paper treated him as an interactionist holding that mind produces energy, in excess of the energy supplied to the body by the recognised physical channels. He had asked me to point out that his view is quite different, *viz.*, that some of the bodily energy may at a given moment be found in a physical form.

I had meant to explain this at the meeting, and regret that I forgot to do so. I had not meant to attribute to him the view he repudiates; but very likely my paper was not clear.

B. BOSANQUET.

June 2, 1912.

¹ *Loc. cit.*, p. 152. Italics mine.